SERVICE MANUAL

M980NU



Notebook Computer

M980NU

Service Manual

Notice

Version 1.0
June 2009

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About this Manual

This manual is intended for service personnel who have completed sufficient training to undertake the maintenance and inspection of personal computers.

It is organized to allow you to look up basic information for servicing and/or upgrading components of the ***M980NU*** series notebook PC.

The following information is included:

Chapter 1, Introduction, provides general information about the location of system elements and their specifications.
Chapter 2, Disassembly, provides step-by-step instructions for disassembling parts and subsystems and how to upgrade elements of the system.

Appendix A, Part Lists
Appendix B, Schematic Diagrams

IMPORTANT SAFETY INSTRUCTIONS

Follow basic safety precautions, including those listed below, to reduce the risk of fire, electric shock and injury to persons when using any electrical equipment:

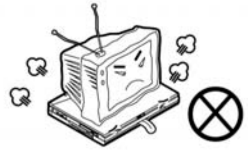
1. Do not use this product near water, for example near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
2. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electrical shock from lightning.
3. Do not use the telephone to report a gas leak in the vicinity of the leak.
4. Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.
5. This product is intended to be supplied by a Listed Power Unit (Full Range AC/DC Adapter – AC Input 100 - 240V, 50 - 60Hz, DC Output 20V, 11A or 19V, 11.6A).

This Computer’s Optical Device is a Laser Class 1 Product

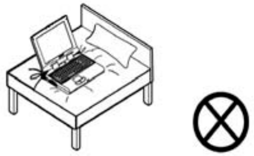
Instructions for Care and Operation

The notebook computer is quite rugged, but it can be damaged. To prevent this, follow these suggestions:

1. **Don’t drop it, or expose it to shock.** If the computer falls, the case and the components could be damaged.

Do not expose the computer to any shock or vibration.	*Do not place it on an unstable surface.*	*Do not place anything heavy on the computer.*
		

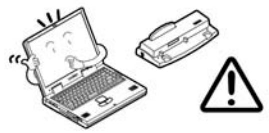
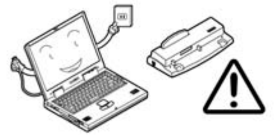
2. **Keep it dry, and don’t overheat it.** Keep the computer and power supply away from any kind of heating element. This is an electrical appliance. If water or any other liquid gets into it, the computer could be badly damaged.

Do not expose it to excessive heat or direct sunlight.	*Do not leave it in a place where foreign matter or moisture may affect the system.*	*Don’t use or store the computer in a humid environment.*	*Do not place the computer on any surface which will block the vents.*
			

3. **Follow the proper working procedures for the computer**. Shut the computer down properly and don’t forget to save your work. Remember to periodically save your data as data may be lost if the battery is depleted.

Do not turn off the power until you properly shut down all programs.	*Do not turn off any peripheral devices when the computer is on.*	*Do not disassemble the computer by yourself.*	*Perform routine maintenance on your computer.*
			

4. **Avoid interference.** Keep the computer away from high capacity transformers, electric motors, and other strong magnetic fields. These can hinder proper performance and damage your data.
5. **Take care when using peripheral devices**.

Use only approved brands of peripherals. 	*Unplug the power cord before attaching peripheral devices.* 

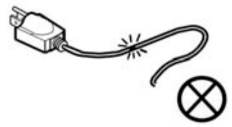
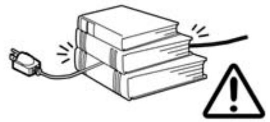
Preface

> **Power Safety Warning**
>
> Before you undertake any upgrade procedures, make sure that you have turned off the power, and disconnected all peripherals and cables (including telephone lines). It is advisable to also remove your battery in order to prevent accidentally turning the machine on.

Power Safety

The computer has specific power requirements:

- Only use a power adapter approved for use with this computer.
- Your AC adapter may be designed for international travel but it still requires a steady, uninterrupted power supply. If you are unsure of your local power specifications, consult your service representative or local power company.
- The power adapter may have either a 2-prong or a 3-prong grounded plug. The third prong is an important safety feature; do not defeat its purpose. If you do not have access to a compatible outlet, have a qualified electrician install one.
- When you want to unplug the power cord, be sure to disconnect it by the plug head, not by its wire.
- Make sure the socket and any extension cord(s) you use can support the total current load of all the connected devices.
- Before cleaning the computer, make sure it is disconnected from any external power supplies.

Do not plug in the power cord if you are wet. 	*Do not use the power cord if it is broken.* 	*Do not place heavy objects on the power cord.* 

Battery Precautions

- Only use batteries designed for this computer. The wrong battery type may explode, leak or damage the computer.
- Do not continue to use a battery that has been dropped, or that appears damaged (e.g. bent or twisted) in any way. Even if the computer continues to work with a damaged battery in place, it may cause circuit damage, which may possibly result in fire.
- Recharge the batteries using the notebook's system. Incorrect recharging may make the battery explode.
- Do not try to repair a battery pack. Refer any battery pack repair or replacement to your service representative or qualified service personnel.
- Keep children away from, and promptly dispose of a damaged battery. Always dispose of batteries carefully. Batteries may explode or leak if exposed to fire, or improperly handled or discarded.
- Keep the battery away from metal appliances.
- Affix tape to the battery contacts before disposing of the battery.
- Do not touch the battery contacts with your hands or metal objects.

Battery Guidelines

The following can also apply to any backup batteries you may have.

- If you do not use the battery for an extended period, then remove the battery from the computer for storage.
- Before removing the battery for storage charge it to 60% - 70%.
- Check stored batteries at least every 3 months and charge them to 60% - 70%.

Battery Disposal

The product that you have purchased contains a rechargeable battery. The battery is recyclable. At the end of its useful life, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

Caution

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used battery according to the manufacturer's instructions.

Battery Level

Click the battery icon in the taskbar to see the current battery level and charge status. A battery that drops below a level of 10% will not allow the computer to boot up. Make sure that any battery that drops below 10% is recharged within one week.

Related Documents

You may also need to consult the following manual for additional information:

User’s Manual on CD
This describes the notebook PC’s features and the procedures for operating the computer and its ROM-based setup program. It also describes the installation and operation of the utility programs provided with the notebook PC.

Contents

Chapter 1: Introduction

Overview

This manual covers the information you need to service or upgrade the ***M980NU*** series notebook computer. Information about operating the computer (e.g. getting started, and the *Setup* utility) is in the *User's Manual*. Information about drivers (e.g. VGA & audio) is also found in *User's Manual*. That manual is shipped with the computer.

Operating systems (e.g. *Windows XP*, *Windows Vista*, etc.) have their own manuals as do application software (e.g. word processing and database programs). If you have questions about those programs, you should consult those manuals.

The ***M980NU*** series notebook is designed to be upgradeable. See ***"Disassembly" on page 2 - 1*** for a detailed description of the upgrade procedures for each specific component. Please note the warning and safety information indicated by the "" symbol.

The balance of this chapter reviews the computer's technical specifications and features.

System Specifications

Processor
Intel® Core™ 2 Quad Processor - (478-pin) Micro-FC-PGA Package, 45nm (45 Nanometer) Process Technology: **QX93000** - **2.53 GHz**, 12MB On-die L2 Cache & 1066MHz FSB (45W) **X9100** - **2.53GHz,** 6MB On-die L2 Cache & 1066MHz FSB (44W) **Q9000** - **2.0GHz,** 6MB On-die L2 Cache & 1066MHz FSB (45W) **Q9100** - **2.26GHz,** 12MB On-die L2 Cache & 1066MHz FSB (45W) **Intel® Core™ 2 Duo Processor** - (478-pin) Micro-FC-PGA Package, 45nm (45 Nanometer) Process Technology: **T9400** - **2.53 GHz**, 6MB On-die L2 Cache & 1066MHz FSB (35W) **T9600** - **2.80 GHz**, 6MB On-die L2 Cache & 1066MHz FSB (35W) **T9800** - **2.93 GHz**, 6MB On-die L2 Cache & 1066MHz FSB (35W) **Intel® Core™ 2 Duo Processor** - (478-pin) Micro-FC-PGA Package, 45nm (45 Nanometer) Process Technology: **P9500** - **2.66 GHz**, 6MB On-die L2 Cache & 1066MHz FSB (25W) **P9600** - **2.53 GHz**, 6MB On-die L2 Cache & 1066MHz FSB (25W) **P8600** - **2.66 GHz**, 3MB On-die L2 Cache & 1066MHz FSB (25W) **P8700** - **2.53 GHz**, 3MB On-die L2 Cache & 1066MHz FSB (25W)
Core Logic
MCP79 SLI Chipset
Display
18.4" Full HD (1920 * 1080) TFT LCD
Memory
Two 64-bit wide **DDRIII (DDR3)** data channels Two 204 Pin SO-DIMM Sockets Supporting **DDRIII (DDR3)** 1066MHz/ 1333MHz Memory Modules Memory Expandable up to 4GB

Video Adapter
nVIDIA® GeForce GTX 280M SLI PCIe Video Card 1GB GDDR3 Video RAM On Board Supports PCIe * 8 (SLI - 2 * PCIe * 8) Supports Microsoft DirectX® 10.0 Supports HDCP
BIOS
One 8Mb Flash ROM Phoenix™ BIOS
Storage
Up to three (**Option**) Changeable 2.5" 9.5 mm (h) **SATA** (Serial) Hard Disk Drives supporting RAID level 0/1 One 12.7 mm Super Multi/Blu-Ray Combo/Writer SATA Optical Device Drive (**Option**)
Keyboard & Pointing Device
Full Size Winkey Keyboard with Numeric Keypad Built-In TouchPad (Scroll Functionality Included) Eight Touch Sensor Instant Keys (Color, CCD, Bluetooth, WLAN, Internet, Silent Mode, Sound Effect, Mute) Eight Gaming Keys G1 ~ G8
Card Reader
Embedded 7-in-1 Card Reader (MS/ MS Pro/ SD/ Mini SD/ MMC/ RS MMC/ MS Duo) **Note:** MS Duo/ Mini SD/ RS MMC Cards require a PC adapter

Interface
Four USB 2.0 Ports One eSATA Port One DVI-Out Port (with CRT out) One HDMI (High-Definition Multimedia Interface) Port with Audio Output (with HDCP Support) One Headphone/Speaker-Out Jack One Microphone-In Jack One Line-In Jack One S/PDIF Out Jack One RJ-45 LAN Jack One Mini-IEEE1394a Port One DC-In Jack One Consumer Infrared Port for TV Tuner Remote Controller CATV Jack (for TV Tuner)
Slots
One ExpressCard/34/54 Slot Two Mini Card Slots: **Slot 1** for PCIe WLAN Module **Slot 2** for USB TV Tuner Module
Audio
High Definition Audio3D Stereo Enhanced Sound System S/PDIF Digital Output Built-In Microphone 5 * Built-In Speakers (2W/ 1.5W, 4Ω) One Sub Woofer (2W, 4Ω,) Dolby Surround Supported
Security
Security (Kensington® Type) Lock Slot BIOS Password Fingerprint Reader Module (**Factory Option**) Trusted Platform Module V1.2 (**Factory Option**)

Communication
Built-In Giga Base-TX Ethernet LAN Bluetooth 2.1 + EDR (Enhanced Data Rate) Module (**Factory Option**) Intel® WiFi Link 5300 Series (3*3 - 802.11a/g/n) Wireless LAN PCIe interface Mini-Card Module (**Option**) Intel® WiFi Link 5100 Series (1*2 - 802.11a/g/n) Wireless LAN PCIe interface Mini-Card Module (**Option**) 3rd Party 802.11b/g Wireless LAN PCIe interface Mini-Card Module (**Option**) 2.0M or 3.0M Pixel PC Camera Module with USB interface (**Factory Option**)
Operating System
Windows Vista Home Premium/ Business/ Enterprise/ Ultimate Note that the TV Tuner module (factory) option in ***Windows Vista*** is supported by the **Windows Media Center** software which comes built-in to the ***Windows Vista Home Premium*** and ***Ultimate*** **Editions only**.
Power Management
Supports Wake on LAN Supports Wake on USB
Power
Full Range AC/DC Adapter – AC in 100 - 240V, 50 - 60Hz DC Output 19V, 11.6A or 19V, 12.2A (220 Watts) Easy Changeable Polima Smart Lithium-Ion 4650mAH Main Battery
Physical Dimensions & Weight
439mm (w) * 299mm (d) * 44mm (h) Around 4.9kg with Battery and ODD

Environmental Spec
Temperature Operating: 5°C - 35°C Non-Operating: -20°C - 60°C Relative Humidity Operating: 20% - 80% Non-Operating: 10% - 90%
Optional
Super Multi Drive Module Blu-Ray Combo Drive Module Intel® WiFi Link 5300/5100 Series (3*3/1*2 - 802.11a/g/n) Wireless LAN PCIe Interface Mini-Card Module 3rd Party 802.11b/g Wireless LAN PCIe Interface Mini-Card Module Bluetooth 2.1 + EDR (Enhanced Data Rate) Module (**Factory Option**) 2.0M or 3.0M Pixel USB 2.0 PC Camera Module (**Factory Option**) Fingerprint Reader Module (**Factory Option**) Mini-Card TV Tuner Module with USB Interface (**Factory Option**)

External Locator - Top View with LCD Panel Open



Figure 1
Top View

1. Optional Built-In PC Camera
2. LCD
3. LED Status Indicators
4. Touch Sensor Instant Keys
5. 8 * Gaming Keys
6. Keyboard
7. TouchPad and Buttons
8. Fingerprint Reader Module (**optional**)
9. LED Power Indicators

External Locator - Front & Right side Views

Figure 2
Front Views

1. Color LEDs
2. Speakers
3. LED Power Indicators
4. Consumer Infrared Transceiver (enabled with optional TV Tuner only)



Figure 3
Right Side Views

5. Headphone-In Jack
6. Microphone-In Jack
7. Line-In Jack
8. S/PDIF-Out Jack
9. Cable (CATV) Antenna Jack*
10. Combined eSATA/USB Port
11. USB 2.0 Port
12. Security Lock Slot
13. Power Button



External Locator - Left Side & Rear View



Figure 4
Left Side View

1. DVI-Out Port
2. 2 * USB 2.0 Ports
3. RJ-45 LAN Jack
4. HDMI-Out Port
5. 7-in-1 Card Reader
6. ExpressCard Slot
7. Mini-IEEE 1394 Port
8. Optional Device Drive Bay



Figure 5
Rear View

9. Color LEDs
10. Speakers
11. DC-In Jack

External Locator - Bottom View

Figure 6
Bottom View

1. Sub Woofer
2. Fan Outlet/Intake
3. Component Bay Cover
4. Battery (Secondary HDD Bay - HDD3)
5. Primary HDD Bay (HDD1 & 2)



Overheating

To prevent your computer from overheating make sure nothing blocks the vent/fan intakes while the computer is in use.

Mainboard Overview - Top (Key Parts)

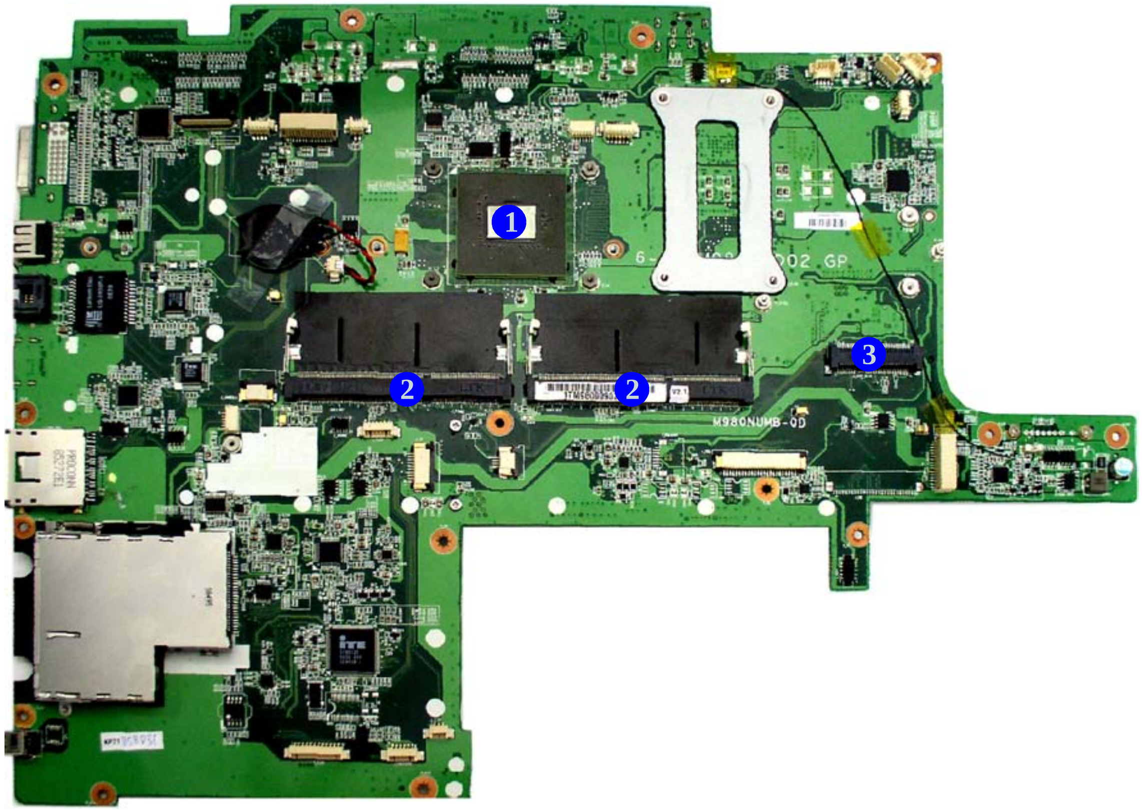


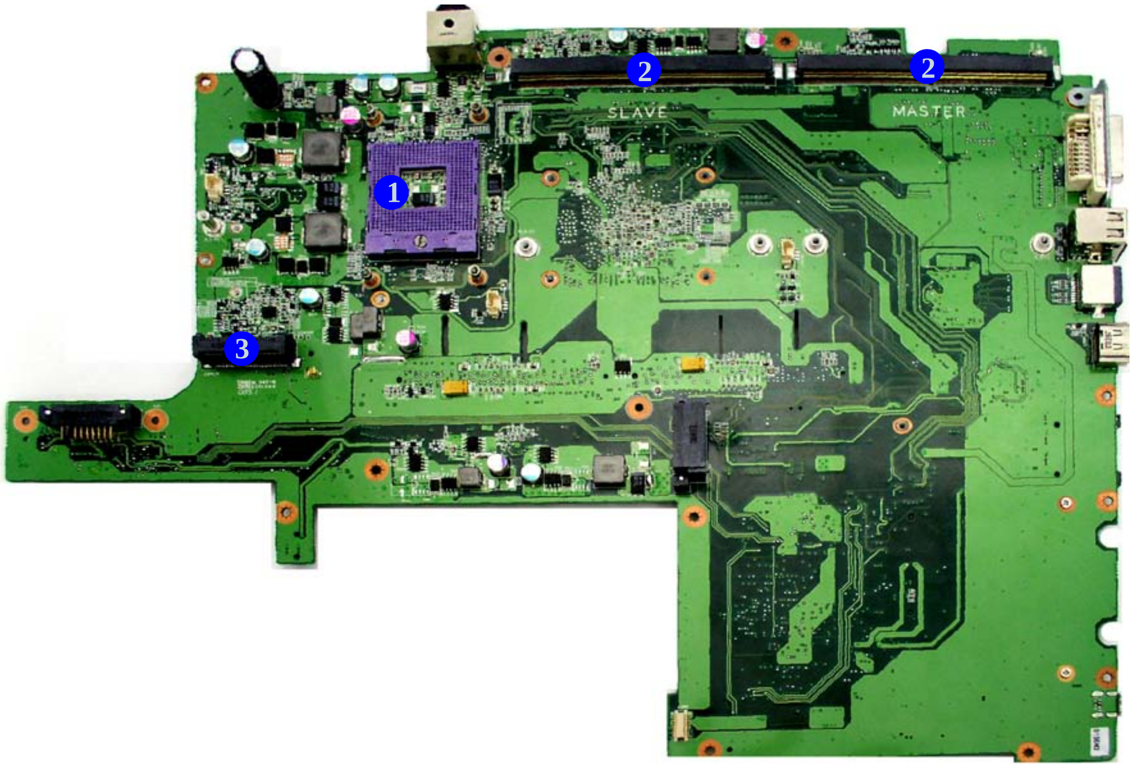
Figure 7
Mainboard Top Key Parts

1. North Bridge
2. Memory Slots DDR3 So-DIMM
3. Mini-Card Connector (WLAN Module)

Mainboard Overview - Bottom (Key Parts)

Figure 8
Mainboard Bottom Key Parts

1. CPU Socket
2. VGA Socket
3. Mini-Card Connector (TV Module)



Mainboard Overview - Top (Connectors)

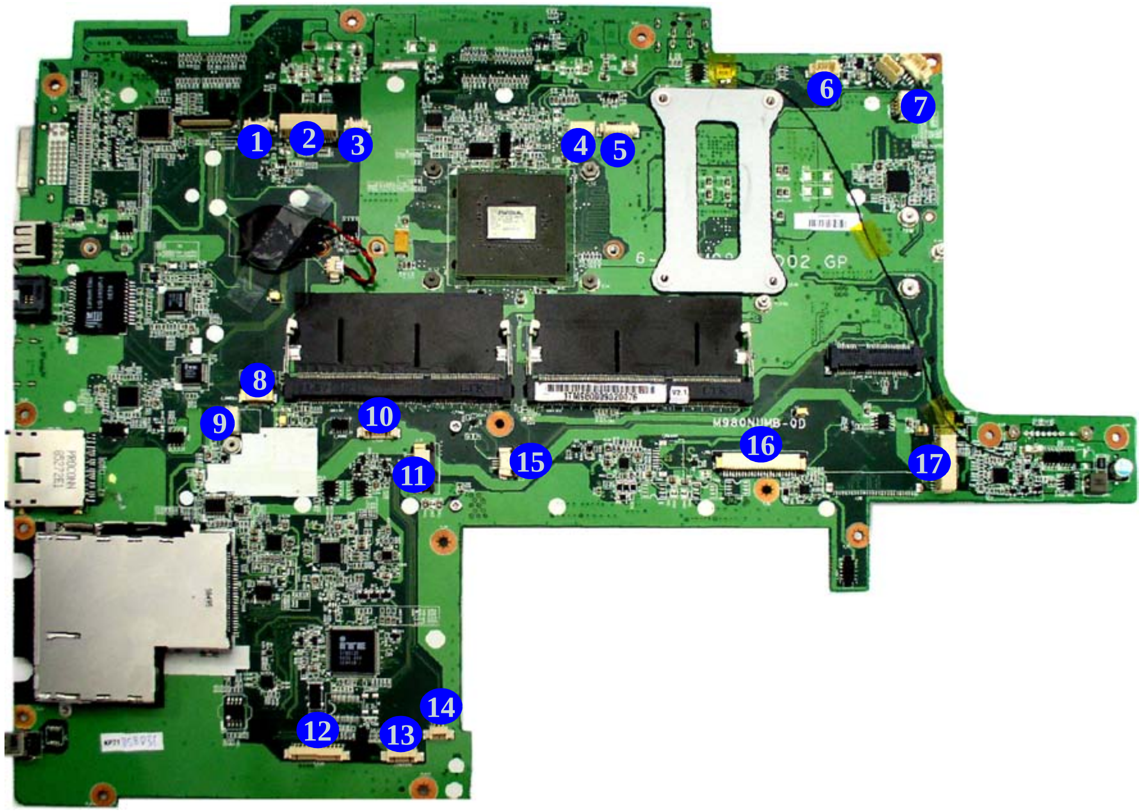


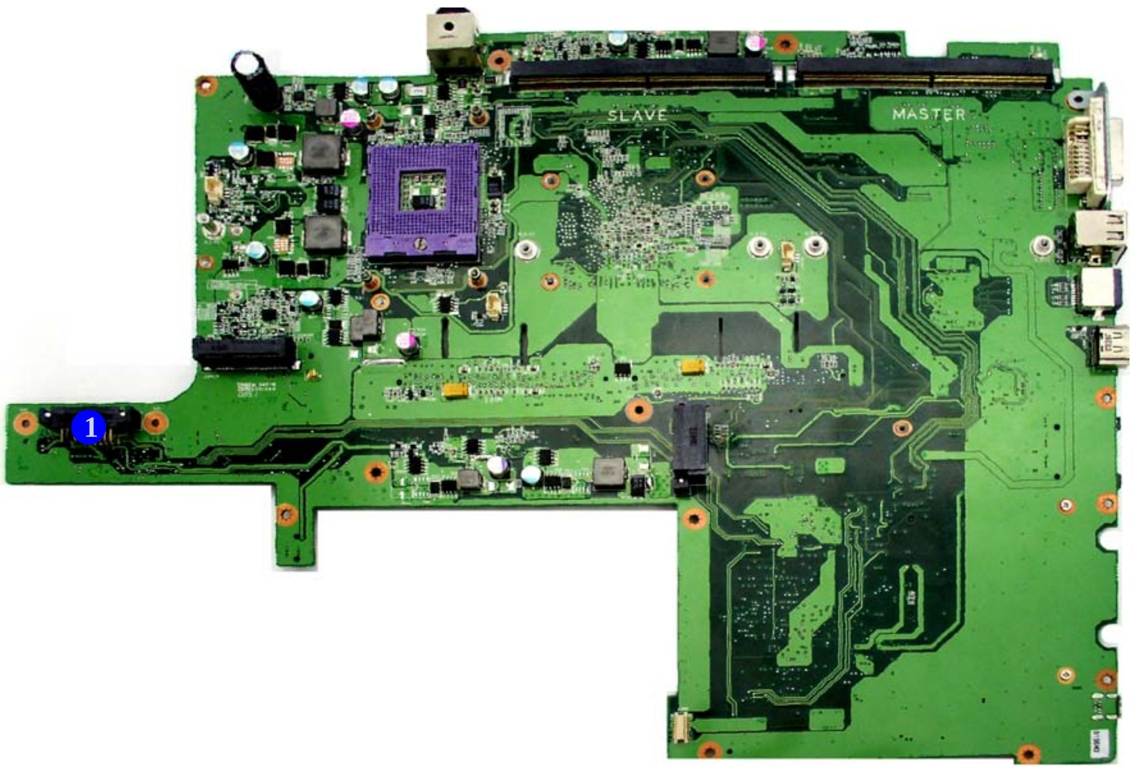
Figure 9
Mainboard Top Connectors

1. CCD Cable Connector
2. LCD Cable Connector
3. Side L Cable Connector
4. Inverter Cable Connector
5. LED Cable Connector
6. Subwoofer Connector
7. Power Button Connector
8. Game-Key Cable Connector
9. Bluetooth Module Connector
10. LED Cable Connector
11. Touch Pad Connector
12. USB Cable Connector
13. Audio Cable Connector
14. SW Connector
15. Fingerprint Connector
16. Keyboard Cable Connector
17. Audio Cable Connector

Mainboard Overview - Bottom (Connectors)

Figure 10
Mainboard Bottom Connectors

1. Battery Connector



Chapter 2: Disassembly

Overview

This chapter provides step-by-step instructions for disassembling the ***M980NU*** series notebook's parts and subsystems. When it comes to reassembly, reverse the procedures (unless otherwise indicated).

We suggest you completely review any procedure before you take the computer apart.

Procedures such as upgrading/replacing the RAM, optical device and hard disk are included in the User's Manual but are repeated here for your convenience.

To make the disassembly process easier each section may have a box in the page margin. Information contained under the figure # will give a synopsis of the sequence of procedures involved in the disassembly procedure. A box with a lists the relevant parts you will have after the disassembly process is complete. **Note**: The parts listed will be for the disassembly procedure listed ONLY, and not any previous disassembly step(s) required. Refer to the part list for the previous disassembly procedure. The amount of screws you should be left with will be listed here also.

A box with a will also provide any possible helpful information. A box with a contains warnings.

An example of these types of boxes are shown in the sidebar.

Information

Warning

NOTE: All disassembly procedures assume that the system is turned **OFF**, and disconnected from any power supply (the battery is removed too).

Maintenance Tools

The following tools are recommended when working on the notebook PC:

- M3 Philips-head screwdriver
- M2.5 Philips-head screwdriver (magnetized)
- M2 Philips-head screwdriver
- Small flat-head screwdriver
- Pair of needle-nose pliers
- Anti-static wrist-strap

Connections

Connections within the computer are one of four types:

Locking collar sockets for ribbon connectors	To release these connectors, use a small flat-head screwdriver to gently pry the locking collar away from its base. When replacing the connection, make sure the connector is oriented in the same way. The pin1 side is usually not indicated.
Pressure sockets for multi-wire connectors	To release this connector type, grasp it at its head and gently rock it from side to side as you pull it out. Do not pull on the wires themselves. When replacing the connection, do not try to force it. The socket only fits one way.
Pressure sockets for ribbon connectors	To release these connectors, use a small pair of needle-nose pliers to gently lift the connector away from its socket. When replacing the connection, make sure the connector is oriented in the same way. The pin1 side is usually not indicated.
Board-to-board or multi-pin sockets	To separate the boards, gently rock them from side to side as you pull them apart. If the connection is very tight, use a small flat-head screwdriver - use just enough force to start.

Maintenance Precautions

The following precautions are a reminder. To avoid personal injury or damage to the computer while performing a removal and/or replacement job, take the following precautions:

1. **Don't drop it**. Perform your repairs and/or upgrades on a stable surface. If the computer falls, the case and other components could be damaged.
2. **Don't overheat it**. Note the proximity of any heating elements. Keep the computer out of direct sunlight.
3. **Avoid interference**. Note the proximity of any high capacity transformers, electric motors, and other strong magnetic fields. These can hinder proper performance and damage components and/or data. You should also monitor the position of magnetized tools (i.e. screwdrivers).
4. **Keep it dry**. This is an electrical appliance. If water or any other liquid gets into it, the computer could be badly damaged.
5. **Be careful with power**. Avoid accidental shocks, discharges or explosions.
   - Before removing or servicing any part from the computer, turn the computer off and detach any power supplies.
   - When you want to unplug the power cord or any cable/wire, be sure to disconnect it by the plug head. Do not pull on the wire.
6. **Peripherals** – Turn off and detach any peripherals.
7. **Beware of static discharge**. ICs, such as the CPU and main support chips, are vulnerable to static electricity. Before handling any part in the computer, discharge any static electricity inside the computer. When handling a printed circuit board, do not use gloves or other materials which allow static electricity buildup. We suggest that you use an anti-static wrist strap instead.
8. **Beware of corrosion**. As you perform your job, avoid touching any connector leads. Even the cleanest hands produce oils which can attract corrosive elements.
9. **Keep your work environment clean**. Tobacco smoke, dust or other air-born particulate matter is often attracted to charged surfaces, reducing performance.
10. **Keep track of the components**. When removing or replacing any part, be careful not to leave small parts, such as screws, loose inside the computer.

Power Safety Warning

Before you undertake any upgrade procedures, make sure that you have turned off the power, and disconnected all peripherals and cables (including telephone lines). It is advisable to also remove your battery in order to prevent accidentally turning the machine on.

Cleaning

Do not apply cleaner directly to the computer, use a soft clean cloth.
Do not use volatile (petroleum distillates) or abrasive cleaners on any part of the computer.

Disassembly Steps

The following table lists the disassembly steps, and on which page to find the related information. **PLEASE PERFORM THE DISASSEMBLY STEPS IN THE ORDER INDICATED.**

To remove the Battery:

1. Remove the battery *page 2 - 5*

To remove the Optical Device:

1. Remove the battery *page 2 - 5*
2. Remove the Optical device *page 2 - 6*

To remove the HDD:

1. Remove the battery *page 2 - 5*
2. Remove the HDD *page 2 - 7*

To remove the System Memory:

1. Remove the battery *page 2 - 5*
2. Remove the System Memory *page 2 - 9*

To remove the VGA card:

1. Remove the battery *page 2 - 5*
2. Remove the VGA card *page 2 - 11*

To remove the TV Tuner Card:

1. Remove the battery *page 2 - 5*
2. Remove the TV tuner card *page 2 - 14*

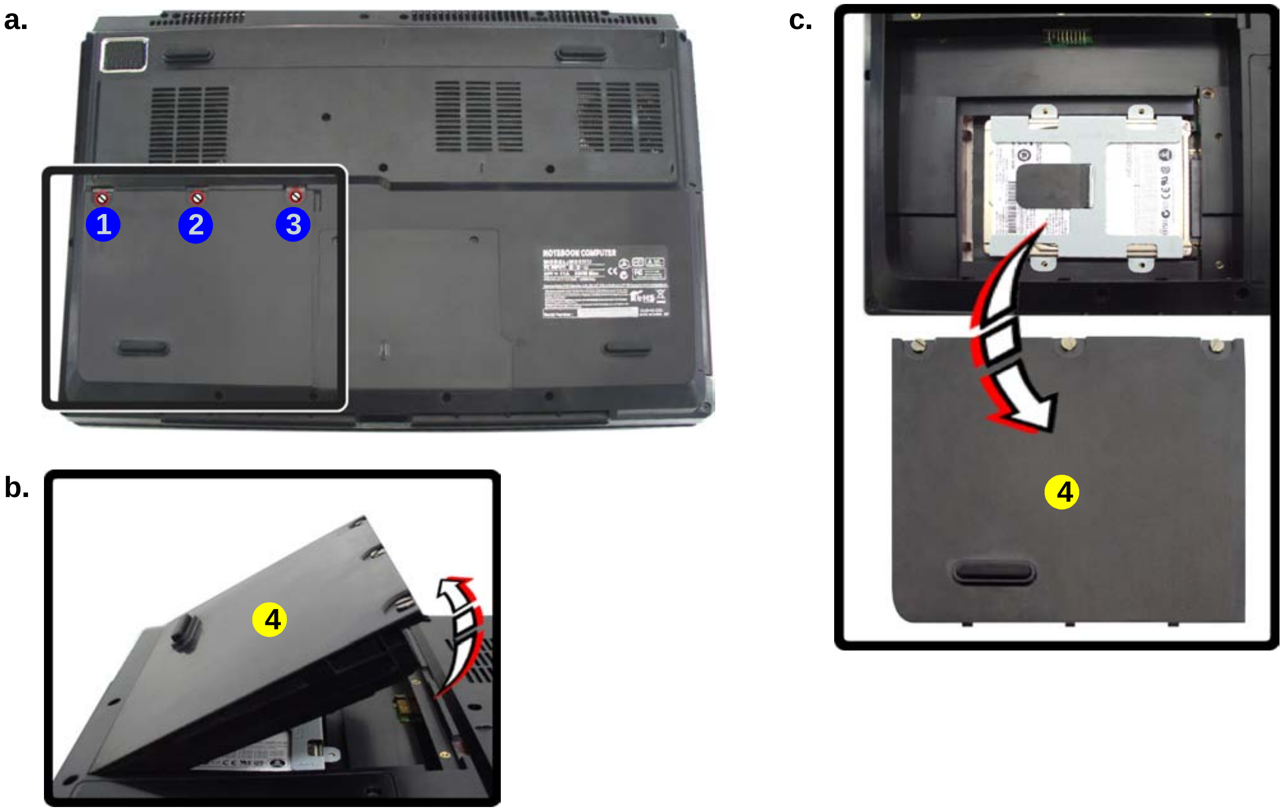
Removing the Battery

If you are confident in undertaking upgrade procedures yourself, for safety reasons it is best to remove the battery.

1. Turn the computer off, and turn it over.
2. Loosen screws 1 - 3 and carefully lift the battery 4 up (***Figure b***) .
3. Remove the battery from the battery bay.

Figure 1
Battery Removal

a. Loosen screws.
b. Release the battery.
c. Lift the battery out of the bay as indicated.



4. Battery

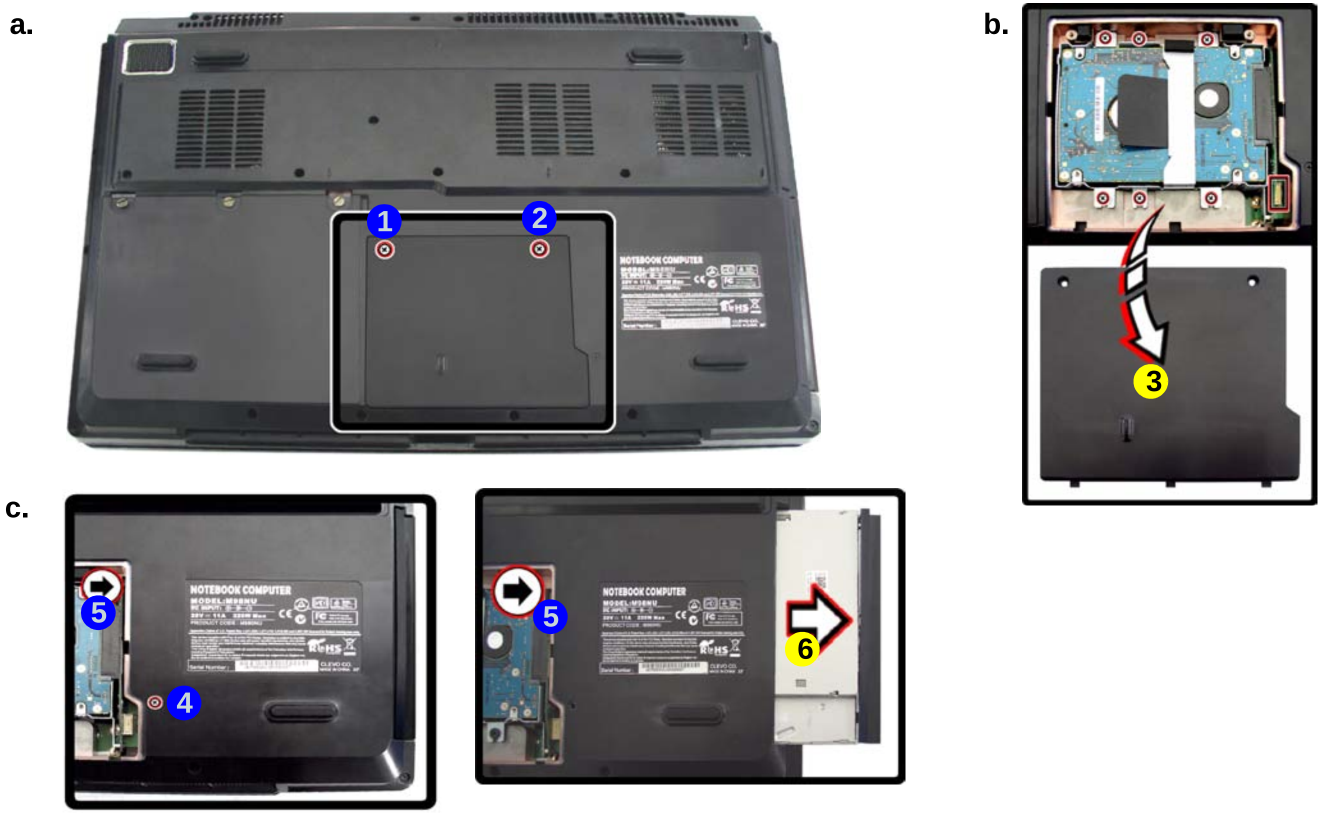
- 3 Screws

Figure 2
Optical Device Removal

a. Remove the screws.
b. Remove the cover.
c. Remove the screw and push the optical device out of the computer at point 8.

Removing the Optical (CD/DVD) Device

1. Turn off the computer, and turn it over and remove the battery (***page 2 - 5***).
2. Locate the hard disk bay cover and remove screws 1 & 2, and remove the bay cover 3.
3. Remove screw 4.
4. Use the screwdriver to push the optical device 6 out of the computer at point 5.
5. Reverse the process to install the new device.



3. Hard Disk Bay Cover
6. Optical Device

- 3 Screws

Removing the Hard Disk Drive

The hard disk drive is mounted in a removable case and can be taken out to accommodate other 2.5" SATA hard disk drives with a height of 9.5mm (h). Follow your operating system's installation instructions, and install all necessary drivers and utilities (as outlined in **Chapter 4 of the User's Manual**) when setting up a new hard disk.

Hard Disk Upgrade Process

1. Turn off the computer, and turn it over and remove the battery (***page 2 - 5***).
2. Locate the hard disk bay cover and remove screws 1 & 2.
3. Remove the bay cover 3.
4. Remove screws 4 - 9 and pull the tab to disconnect the connector 10 from hard disk assembly.
5. Lift the hard disk assembly 11 out of the computer.
6. Remove screws 12 - 21 (depending on how many hard disks you have installed in the assembly).
7. Separate the hard disk board connector 22 from the case 23 .
8. Separate the hard disk(s) 24 from the case.
9. Reverse the process to install a new hard disk(s).

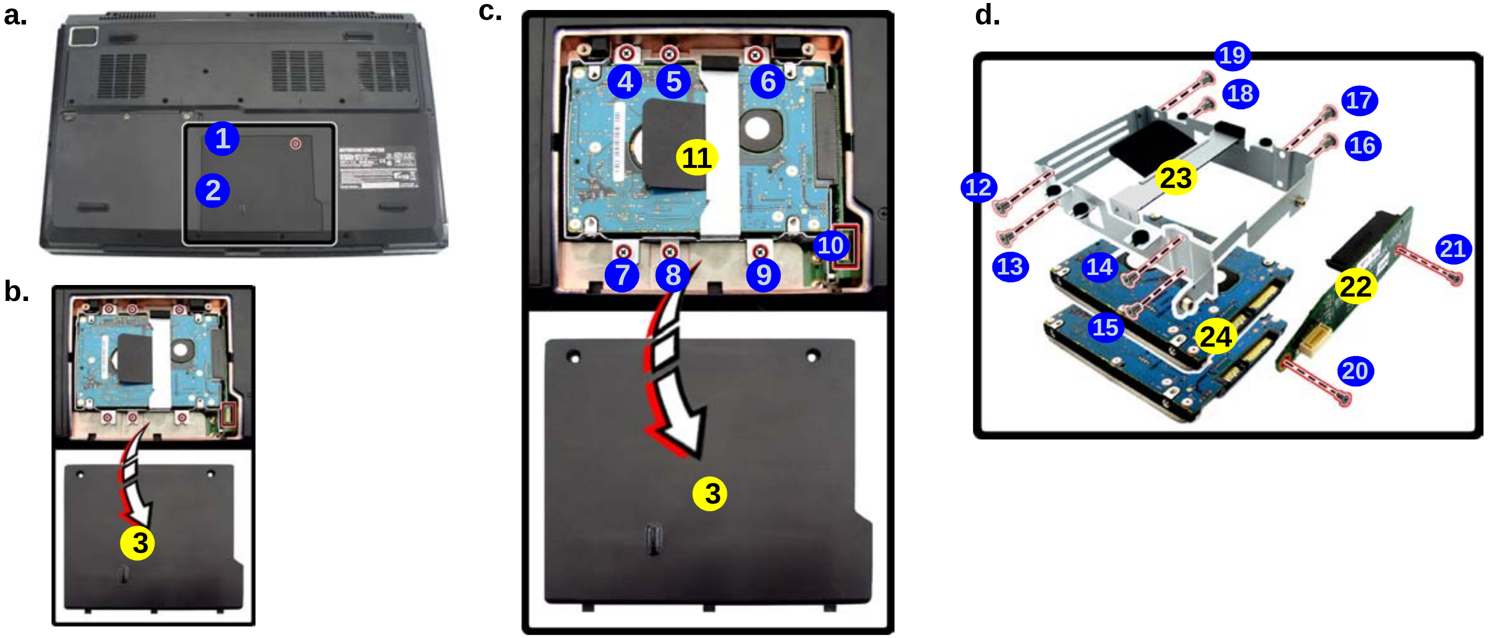


Figure 3
HDD Assembly Removal

a. Remove the screws.
b. Remove the cover
c. Remove the screws and lift the hard disk assembly up out off the computer.
d. Remove the screws and separate the HDD(s) from the connector and case.

3. Hard Disk Bay Cover
11. Hard Disk Assembly
22. HDD connector
23. HDD case
24. HDD

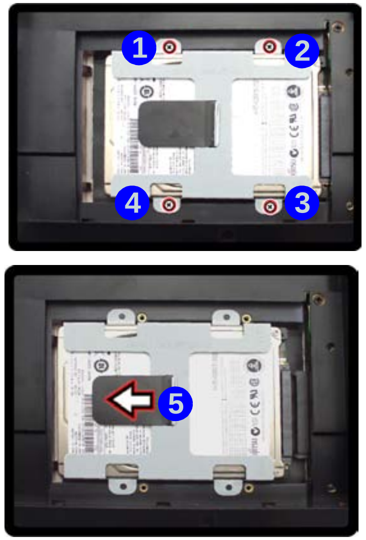
- 18 Screws

Removing the Hard Disk(s) in the Secondary HDD Bay

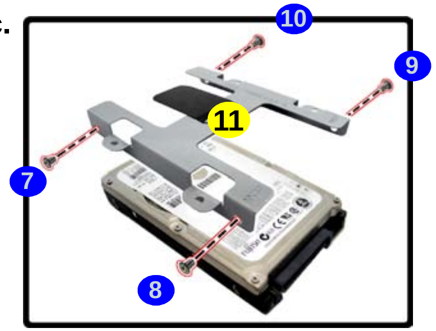
1. Turn **off** the computer, and turn it over and remove the battery.
2. The secondary hard disk bay is located under the battery compartment.
3. Remove screw 1 - 4.
4. Slide the hard disk assembly in the direction of the arrow 5.
5. Lift the hard disk assembly 6 out of the compartment.
6. Remove the screws 7 - 10 to release the hard disk from the case 11 .
7. Reverse the process to install any new hard disk(s).

Figure 4
Secondary HDD Assembly Removal

a. Remove the screws and slide the hard disk assembly in the direction of the arrow.
b. Lift the hard disk assembly out off the computer.
c. Remove the screws to release the hard disk from the case.

a.


b.


c.


6. Hard Disk Assembly
11. Hard Disk Case

- 8 Screws

Removing the System Memory (RAM)

The computer has two memory sockets for 200 pin Small Outline Dual In-line Memory Modules (SO-DIMM) DDR III (DDR3) supporting 1066/1333 MHz. The main memory can be expanded up to 6GB. The SO-DIMM modules supported are 1024MB and 2048MB **DDR** Modules. The total memory size is automatically detected by the POST routine once you turn on your computer.

Memory Upgrade Process

1. Turn off the computer, and turn it over and remove the battery (***page 2 - 5***).
2. Remove screws 1 & 2 from the bottom of the computer.
3. Turn the computer over, open the Lid/LCD, and carefully (a cable 3 is connected to the underside of the LED cover module) lift up the LED cover module 4
4. Remove screws 5 - 9 from the keyboard.

a.



c.



b.

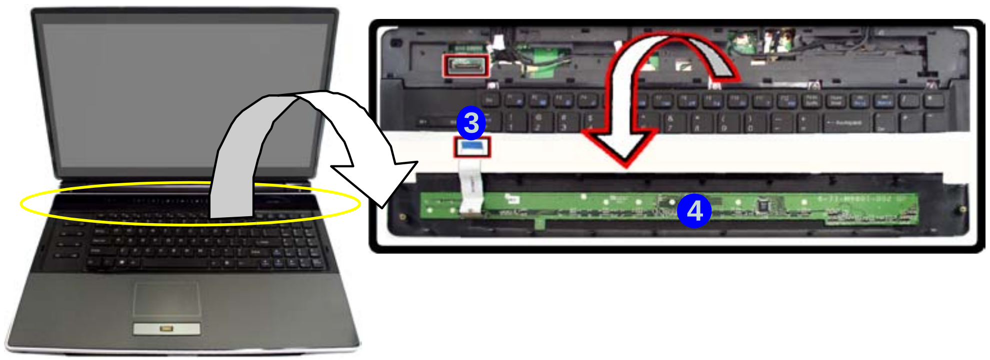


Figure 5
RAM Module Removal

a. Remove the screws from the bottom of the computer.
b. Turn the computer over, open the lid/LCD and lift the LED cover module.
c. Remove the screws from the keyboard.

Caution

The heat sink, and CPU area in general, contains parts which are subject to high temperatures. Allow the area time to cool before removing these parts.

- 7 Screws

2.Disassembly

Figure 6
RAM Module Removal (cont'd.)

d. Disconnect the cable from the locking collar.
e. Remove the keyboard and keyboard plate.
f. Pull the release latch(es).
g. Remove the module(s).

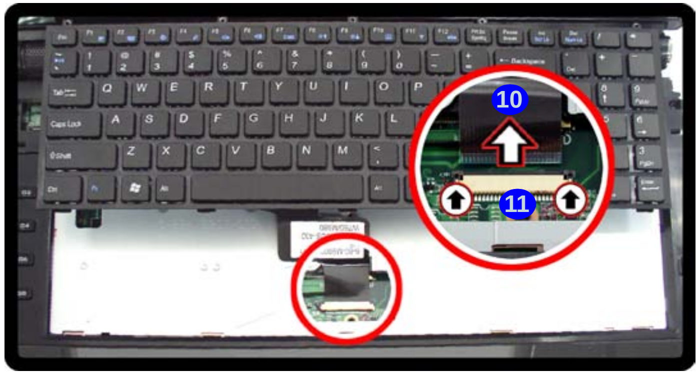
Contact Warning

Be careful not to touch the metal pins on the module's connecting edge. Even the cleanest hands have oils which can attract particles, and degrade the module's performance.

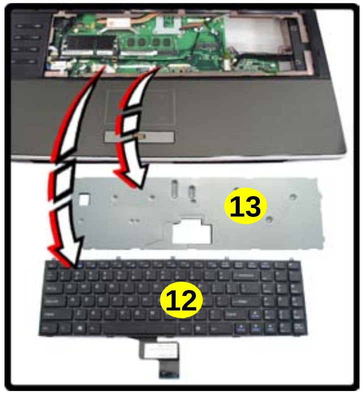
12. Keyboard
13. Keyboard Shielding Plate
16. RAM Module(s)

5. Carefully lift the keyboard up, being careful not to bend the keyboard ribbon cable.
6. Disconnect the keyboard ribbon cable 10 from the locking collar socket 11.
7. Remove the keyboard 12 and keyboard shielding plate 13 .

d.

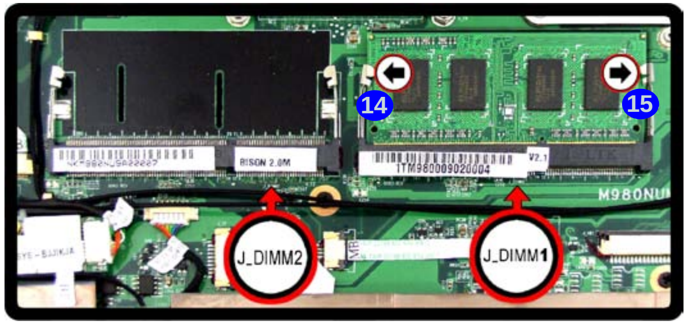


e.



8. Gently pull the two ***release latches* 14 *& 15 on the sides of the memory socket in the direction indicated by the arrows (Figure f)***.
9. The RAM module 16 will pop-up (***Figure g***), and you can then remove it.

f.



g.



Single Memory Module Installation

If your computer has a single memory module, then insert the module into the **Channel 0 (JDIMM1)** socket as shown in ***Figure 6 f***.

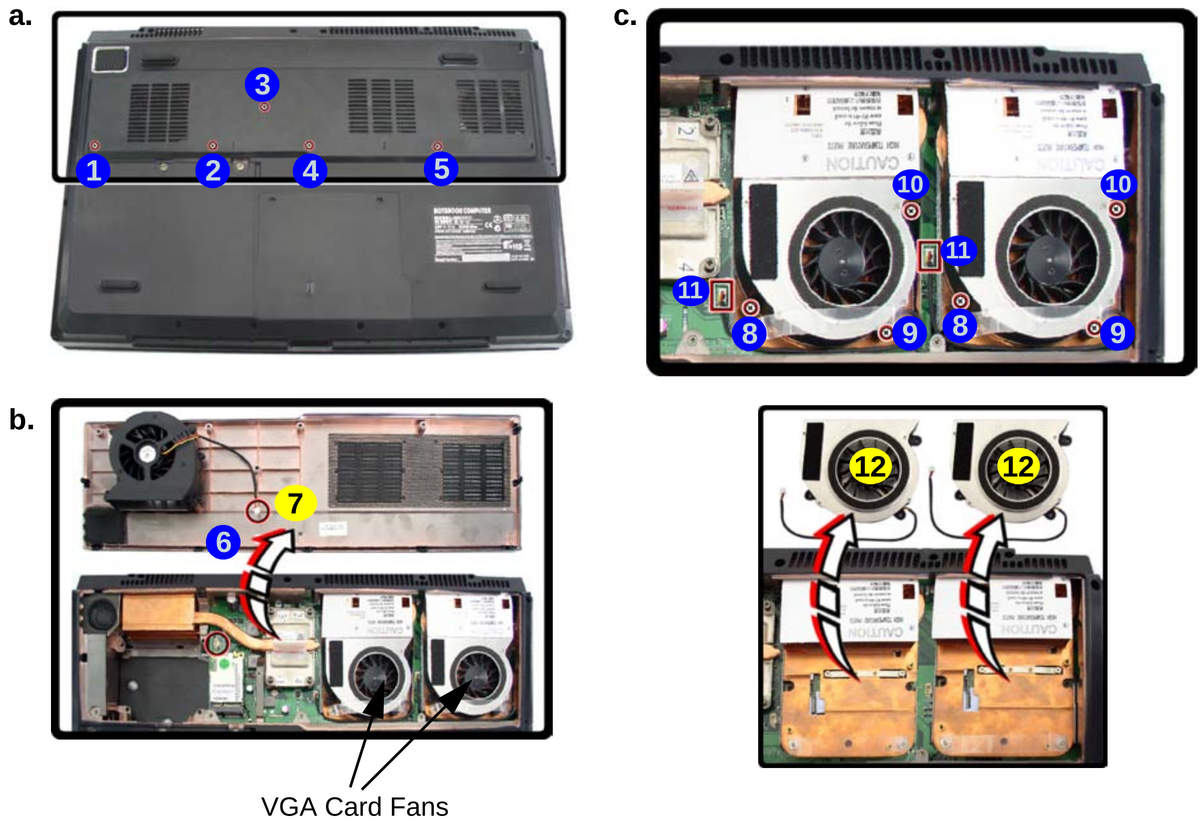
10. Pull the latches to release the second module if necessary.
11. Insert a new module holding it at about a 30° angle and fit the connectors firmly into the memory slot.
12. The module's pin alignment will allow it to only fit one way. Make sure the module is seated as far into the socket as it will go. DO NOT FORCE the module; it should fit without much pressure.
13. Press the module in and down towards the mainboard until the slot levers click into place to secure the module.
14. Replace the heat sink unit, RAM fan, cover and screws.
15. Restart the computer to allow the BIOS to register the new memory configuration as it starts up.

Removing the VGA Card

1. Turn off the computer, and turn it over and remove the battery (***page 2 - 5***).
2. Locate the component bay cover and remove screws 1 - 5.
3. Carefully (**a fan and cable are attached to the under side of the cover**) lift up the bay cover.
4. Carefully disconnect the fan cable 6, and remove the bay cover 7 .
5. Remove screws 8 - 10 (two video cards are pictured here) from the video card fan(s) and disconnect the fan cable(s) 11 (if two cards are present).
6. Remove the VGA card fan 12 .

Figure 7
VGA Card Removal

a. Remove the screws.
b. Remove the cover and disconnect the cable(s).
c. Remove the screws and release the VGA card fan.



7. Bay Cover
12. VGA card fan

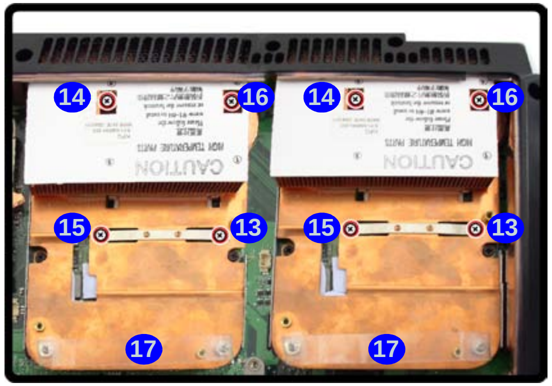
- 11 Screws

Figure 8
VGA Card Removal (cont'd.)

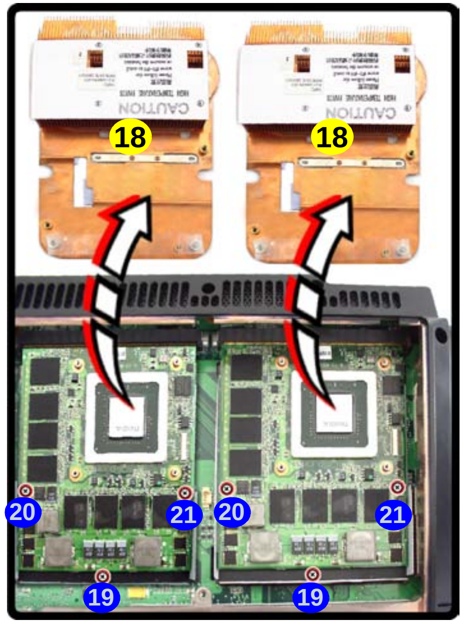
d. Remove the screws.
e. Remove the VGA heatsink.
f. Remove the VGA module.

7. Remove screws 13 - 16 from the heatsink **in the order indicated on the label** (two video cards are pictured here).
8. Grip the handle 17 and carefully remove the heatsink 18 .
9. Remove screws 19 - 21 from the video card.
10. Carefully remove the VGA card module 22 from the mainboard.

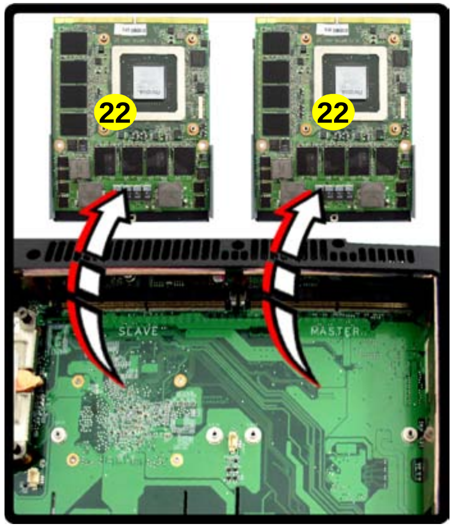
d.



e.



f.



11. Reverse the process to install a new VGA card modules.

18. VGA Card Heatsink
22. VGA Card Module

- 16 Screws

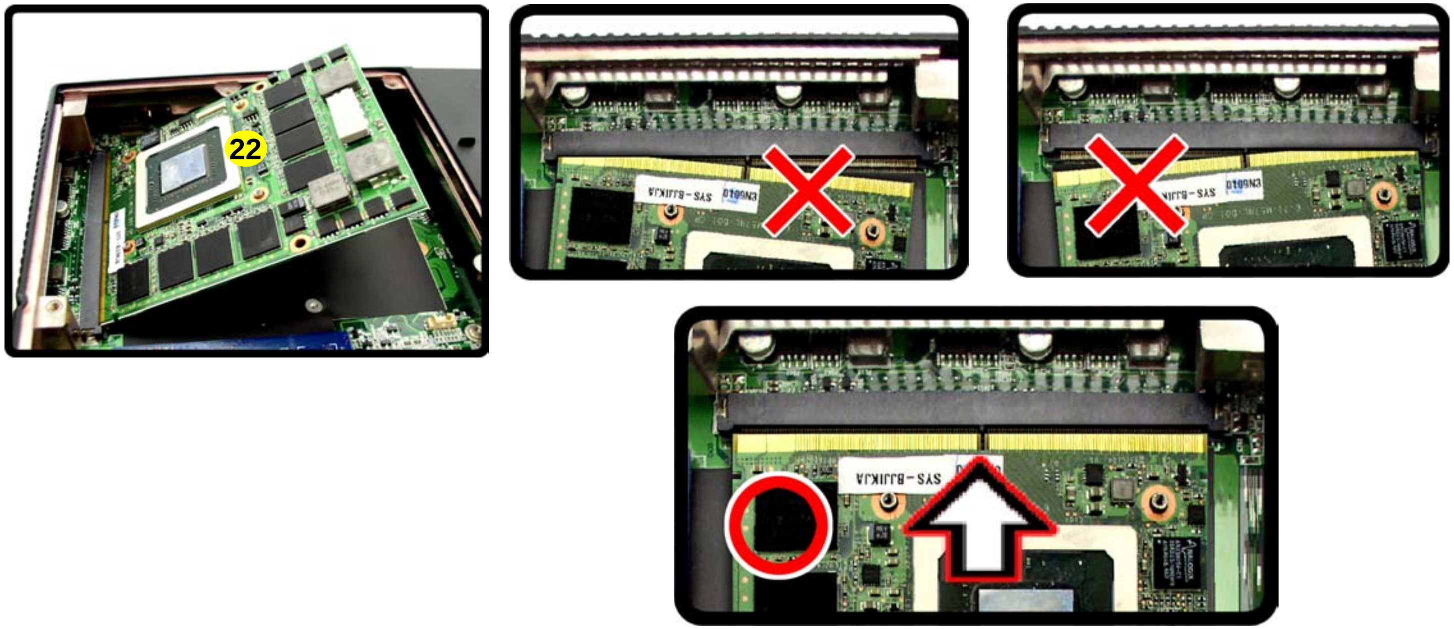
Installing the VGA Card

1. Prepare to fit the VGA card **22** into the slot by holding it at about a 30° angle.
2. The card needs to be fully into the slot, and the VGA card and socket have a guide-key and pin which align to allow the card to fit securely.
3. Fit the connectors firmly into the socket, straight and evenly.
4. DO NOT attempt to push one end of the card in ahead of the other.
5. The card's pin alignment will allow it to only fit one way. **Make sure the module is seated as far into the socket as it will go** (none of the gold colored contact should be showing). DO NOT FORCE the card; it should fit without much pressure.
6. Secure the card with screws **19** - **21** (*Figure 8e on page 2 - 12*).
7. Place the heatsink **18** back on the card, and secure the screws in the order indicated in *Figure 8e on page 2 - 12*.
8. Attach the VGA card fan and secure with the screws as indicated in *Figure 7 on page 2 - 11*.
9. Reinsert the component bay cover, and secure with the screws as indicated in *Figure 7 on page 2 - 11*.

Figure 9
VGA Card Installation

a. Carefully Insert the VGA Card.

a.



22. VGA card Module

Removing the TV Tuner Card

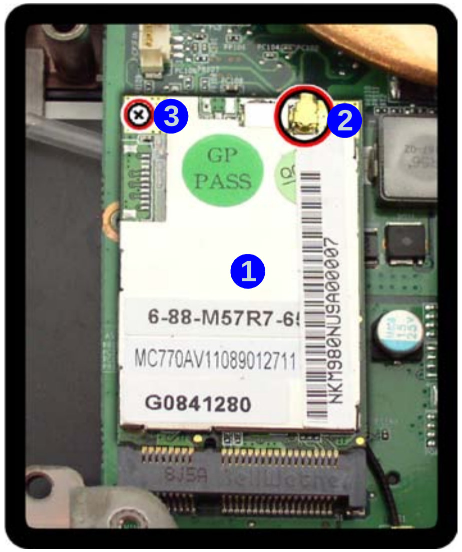
Figure 10
TV Tuner Card Removal

a. Remove the screws and disconnect the cable.
b. The TV tuner card will pop up and remove it.

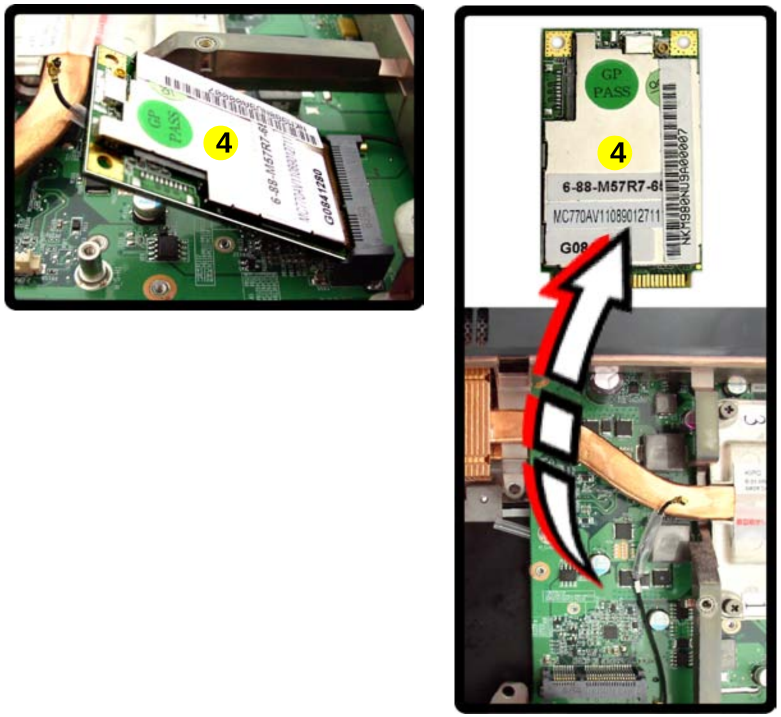
1. Turn off the computer, and turn it over, remove the battery (*page 2 - 5*).
2. The TV tuner card is visible at point 1.
3. Remove the screw 2 from the TV tuner module and disconnect the cable 3 .
4. The TV tuner card 4 will pop-up and and you can remove it.

.

a.



b.



4. TV tuner card

- 1 Screw

Appendix A: Part Lists

This appendix breaks down the ***M980NU*** series notebook's construction into a series of illustrations. The component part numbers are indicated in the tables opposite the drawings.

Note: This section indicates the *manufacturer's* part numbers. Your organization may use a different system, so be sure to cross-check any relevant documentation.

Note: Some assemblies may have parts in common (especially screws). However, the part lists DO NOT indicate the total number of duplicated parts used.

Note: Be sure to check any update notices. The parts shown in these illustrations are appropriate for the system at the time of publication. Over the product life, some parts may be improved or re-configured, resulting in *new* part numbers.

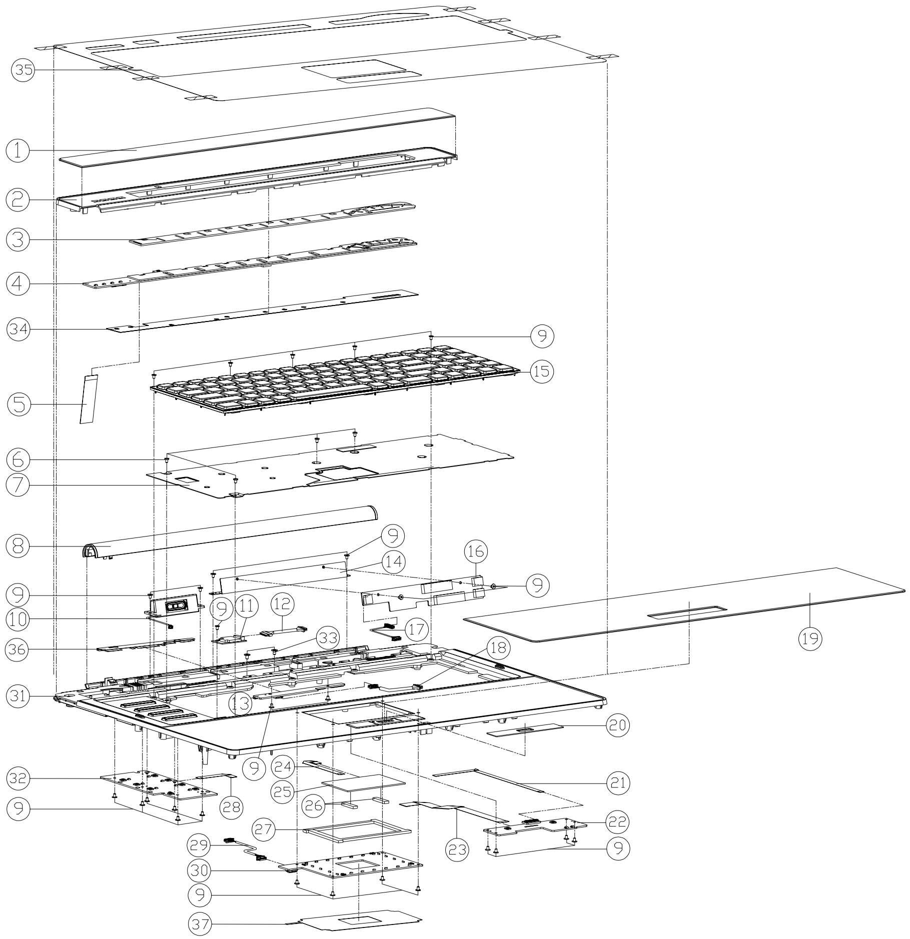
Part List Illustration Location

The following table indicates where to find the appropriate part list illustration.

Table A- 1
Part List Illustration Location

Parts	M980NU
Top with Fingerprint	*page A - 3*
Top without Fingerprint	*page A - 4*
Bottom	*page A - 5*
LCD	*page A - 6*
Mainboard	*page A - 7*
Blu-Ray Combo	*page A - 8*
DVD Super Multi	*page A - 9*

Top with Fingerprint



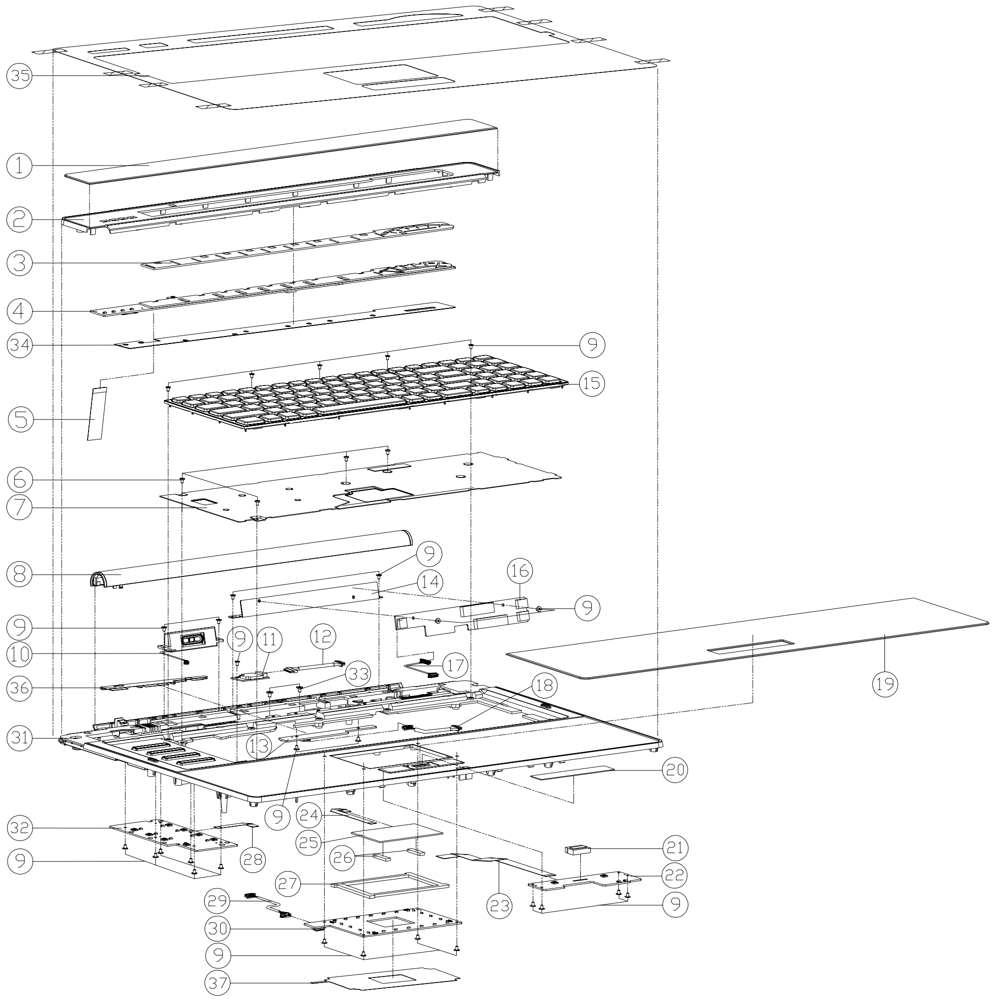
ITEM	PART NAME	PART NO	REMARK
1	PMMA FOR CENTER COVER M980NU 瘢稽	6-42-M9802-011	
2	CENTER COVER MODULE M980NU 瘢稽	6-42-M9802-201	
3	LIGHT GUIDE FOR CENTER COVER PC M980NU 瘢稽	6-42-M9802-092	
4	TOUCH SENSOR BOARD V3.0A M980NU 瘢稽	6-77-M9801-D03A	
5	WIRE CABLE FOR M/B TO TOUCH-SENSOR 28P M980NU 瘢稽	6-43-M9803-012	
6	SCREW M2*3L K1 NI ICT NY 瘢稽	6-35-B1120-3RA	
7	KB SHIELDING MODULE SECC M980NU 瘢稽	6-33-M9807-012	
8	INVERTOR COVER MODULE M980NU 瘢稽	6-33-M980R-201	
9	* 镤斩吔 SCREW M2*3L K1 NI ICT GTY-PATCH 瘢稽	6-35-B1120-3RE	
10	SPEAKER MODULE FOR TOP CASE 1.5W 4 剩 2P 袍埥 M980NU 瘢稽	6-23-5M980-030	
11	BLUETOOTH V2.1 [illegible] 瘢稽	6-88-M73T5-3900	
12	WIRE CABLE 6PIN M/B TO 8PIN BLUETOOTH MODULE FOR M740S 瘢稽	6-43-M74SB-010	
13	BACK L SIDE LED BOARD V3.0A M980NU 瘢稽	6-77-M9803-D03A	
14	INVERTOR BKT SECC M980NU 瘢稽	6-33-M980R-020	
15	K/B UK(砒妄)& FRAME (UK) MODULE M980NU 瘢稽	6-79-M980NU0K-190	
16	INVERTER MODULE R0A MITAC(DA-2A08-CV06L)FOR M980NU 瘢稽	6-76-M980R-011	
17	WIRE CABLE FOR M/B TO INVERTOR 6P M980NU V2.0 瘢稽	6-43-M980R-011	
18	WIRE CABLE FOR M/B TO FAN-LED 6P M980NU V2.0 瘢稽	6-43-M9800-071	
19	PMMA FOR PLAM REST M980NU 瘢稽	6-42-M9802-061	
20	PMMA FOR GP KNOB WITH FINGER M980NU 瘢稽	6-42-M9802-071	
21	FFC CABLE 4P FOR M/B TO FINGERPRINT BOARD V2.0 M980NU 瘢稽	6-43-M980F-011	
22	CLICK BOARD(V3.0)+FINGER BOARD (V2.0) ASS'Y M980NU 瘢稽	6-77-M980A-N03-1	
23	FFC CABLE 12P FOR M/B TO CLICK BOARD V2.0 瘢稽	6-43-M9800-041	
24	FFC CABLE 12P FOR M/B TO TOUCH PAD BOARD V2.0 瘢稽	6-43-M9802-011	
25	TOUCH PAD SYNAPTICS TM-00398-001 M740S 瘢稽	6-49-M74S2-010	
26	TOUCH PAD SPONGE (18*5*2) CR4305 M980NU 瘢稽	6-47-M9802-020	
27	LIGHT GUIDE FOR TOUCH PAD PC M980NU 瘢稽	6-42-M9802-0A1	
28	FFC CABLE 12P FOR M/B TO GAME-KEY BOARD V2.0 瘢稽	6-43-M9800-011	
29	WIRE CABLE FOR M/B TO TOUCH-PAD-LED 6P M980NU 瘢稽	6-43-M9802-021	
30	TOUCH PAD LED BOARD V3.0A M980NU 瘢稽	6-77-M980G-D03A	
31	TOP CASE MODULE M980NU 瘢稽	6-39-M9802-012	
32	GAME-KEY BOARD V3.0 M980NU 瘢稽	6-77-M9807-D03	
33	SCREW M2.5*5L 伣甙 0.4MM K1 BK/Z ICT NY 瘢稽	6-35-B6125-5R0	
34	MYLAR CU FOIL FOR CENTER COVER M980NU 瘢稽	6-40-M9802-030	
35	TOP CASE PROTECT MYLAR PET M980NU 瘢稽	6-40-M9802-020	
36	MYLAR FOR FAN LED PCB(FR83 T=0.075+3M9888T 瘢稽	6-40-M980S-050	
37	TOUCH PAD LED BOARD MYLAR FR83 M980NU 瘢稽	6-40-M980S-010	

Figure A - 1
Top with Fingerprint

A.Part Lists

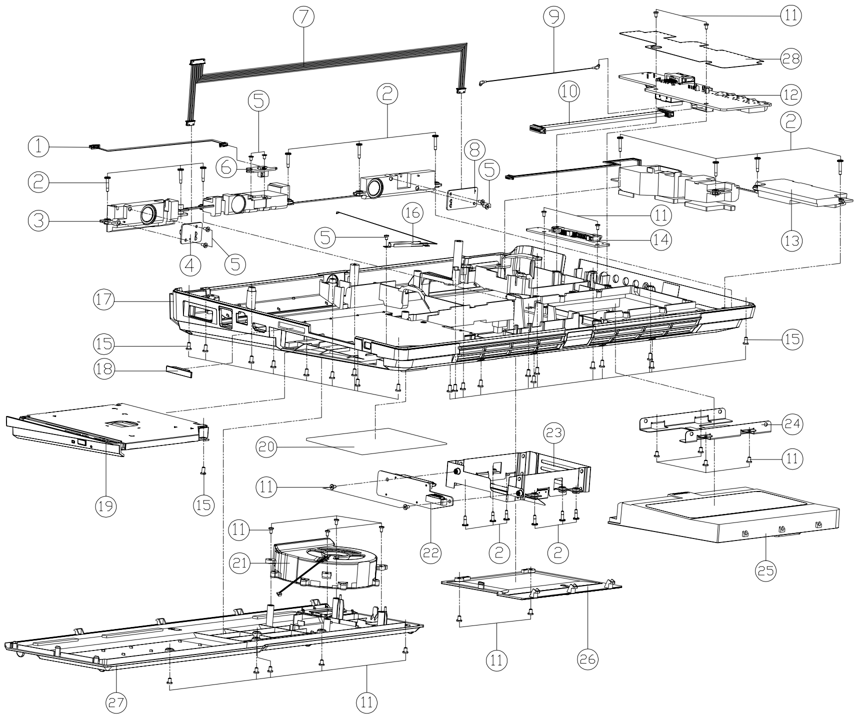
Top without Fingerprint

Figure A - 2
Top without Fingerprint



ITEM	PART NAME	PART NO	REMARK
1	PMMA FOR CENTER COVER M980NU 癥稽	6-42-M9802-011	
2	CENTER COVER MODULE M980NU 癥稽	6-42-M9802-201	
3	LIGHT GUIDE FOR CENTER COVER PC M980NU 癥稽	6-42-M9802-092	
4	TOUCH SENSOR BOARD V3.0A M980NU 癥稽	6-77-M9801-D03A	
5	WIRE CABLE FOR M/B TO TOUCH-SENSOR 28P M980NU 癥稽	6-43-M9803-012	
6	SCREW M2*3L K1 NI ICT NY 癥稽	6-35-B1120-3RA	
7	KB SHIELDING MODULE SECC M980NU 癥稽	6-33-M9807-012	
8	INVERTOR COVER MODULE M980NU 癥稽	6-33-M980R-201	
9	* 憶銜吔 SCREW M2*3L K1 NI ICT GTY-PATCH 癥稽	6-35-B1120-3RE	
10	SPEAKER MODULE FOR TOP CASE 1.5W 4 剚 2P 齣垚 M980NU 癥稽	6-23-5M980-030	
11	BLUETOOTH V2.1 QUICK... 楚喙■垢胗 8 PIN USB CSR BC04 A07 WITH MS ... SOFTWARE M73T 癥稽	6-88-M73T5-3900	
12	WIRE CABLE 6PIN M/B TO 8PIN BLUETOOTH MODULE FOR M740S 癥稽	6-43-M74SB-010	
13	BACK L SIDE LED BOARD V3.0A M980NU 癥稽	6-77-M9803-D03A	
14	INVERTOR BKT SECC M980NU 癥稽	6-33-M980R-020	
15	K/B UK(砒妛)& FRAME (UK) MODULE M980NU 癥稽	6-79-M980NU0K-190	
16	INVERTER MODULE ROB MITAC(DA-2A08-CV06L)FOR M980NU 癥稽	6-76-M980R-011	
17	WIRE CABLE FOR M/B TO INVERTOR 6P M980NU V2.0 癥稽	6-43-M980R-011	
18	WIRE CABLE FOR M/B TO FAN-LED 6P M980NU V2.0 癥稽	6-43-M9800-071	
19	PMMA FOR PLAM REST M980NU 癥稽	6-42-M9802-061	
20	PMMA FOR GP KNOB W/O FINGER M980NU 癥稽	6-42-M9802-081	
21	RUBBER FOR GP KNOB DUMMY M980NU 癥稽	6-47-M9802-050	
22	CLICK BOARD V3.0A(W/O FP) M980NU 癥稽	6-77-M9802-D03A	
23	FFC CABLE 12P FOR M/B TO CLICK BOARD V2.0 癥稽	6-43-M9800-041	
24	FFC CABLE 12P FOR M/B TO TOUCH PAD BOARD V2.0 癥稽	6-43-M9802-011	
25	TOUCH PAD SYNAPTICS TM-00398-001 M740S 癥稽	6-49-M74S2-010	
26	TOUCH PAD SPONGE (18*5*2) CR4305 M980NU 癥稽	6-47-M9802-020	
27	LIGHT GUIDE FOR TOUCH PAD PC M980NU 癥稽	6-42-M9802-0A1	
28	FFC CABLE 12P FOR M/B TO GAME-KEY BOARD V2.0 癥稽	6-43-M9800-011	
29	WIRE CABLE FOR M/B TO TOUCH-PAD-LED 6P M980NU 癥稽	6-43-M9802-021	
30	TOUCH PAD LED BOARD V3.0A M980NU 癥稽	6-77-M980G-D03A	
31	TOP CASE MODULE M980NU 癥稽	6-39-M9802-012	
32	GAME-KEY BOARD V3.0 M980NU 癥稽	6-77-M9807-D03	
33	SCREW M2.5*5L 覘觱 0.4MM K1 BK/Z ICT NY 癥稽	6-35-B6125-5R0	
34	MYLAR CU FOIL FOR CENTER COVER M980NU 癥稽	6-40-M9802-030	
35	TOP CASE PROTECT MYLAR PET M980NU 癥稽	6-40-M9802-020	
36	MYLAR FOR FAN LED PCB(FR83 T=0.075+3M9888T 癥稽	6-40-M980S-050	
37	TOUCH PAD LED BOARD MYLAR FR83 M980NU 癥稽	6-40-M980S-010	

Bottom

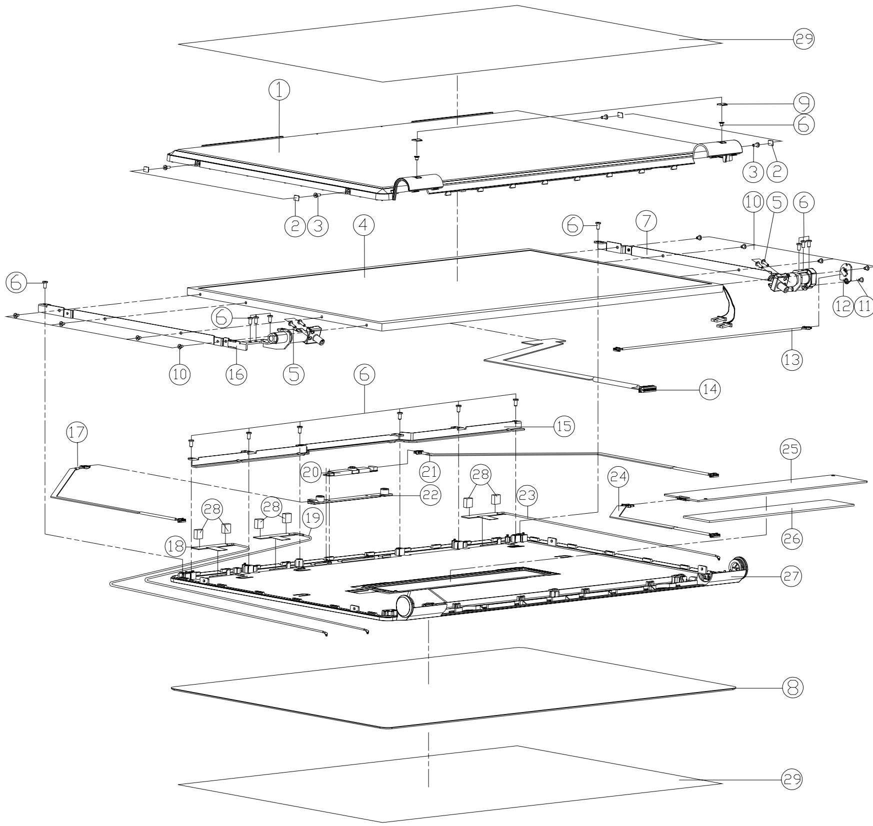


ITEM	PART NAME	PART NO	REMARK
1	WIRE CABLE FOR M/B TO POWER-BOTTOM 3P M980NU 瘢稭	6-43-M9800-020	
2	SCREW M2*7.5L D1=2.1 L=4.5 S=2.5 K NI ICT 瘢稭	6-35-81120-750	
3	SPEAKER L-M-R MODULE 2W 4 剩 6P 齣壟 M980NU 瘢稭	6-23-5M980-022	
4	FRONT R SIDE LED BOARD V3.0A M980NU 瘢稭	6-77-M9804-D03A	
5	*_慵銗呢_SCREW M2*3L KI NI ICT GTY-PATCH 瘢稭	6-35-B1120-3RE	
6	CIR BOARD V3.0 ASS'Y M980NU 瘢稭	6-77-M980H-D03	
7	WIRE CABLE FOR M/B TO LED-R-L 6P M980NU V1.0 瘢稭	6-43-M9800-061	
8	FRONT L SIDE LED BOARD V3.0A M980NU 瘢稭	6-77-M9805-D03A	
9	COAXIAL CABLE BLACK L=240MM FOR TV TUNER M980NU 瘢稭	6-43-M980T-010	
10	WIRE CABLE FOR M/B TO AUDIO 30P M980NU V1.0 瘢稭	6-43-M9800-051	
11	SCREW M2.5*5L KI BK/Z ICT NY 瘢稭	6-35-B6125-5RA	
12	AUDIO BOARD V3.0 M980NU 瘢稭	6-77-M9808-D03	
13	SPEAKER SUB_WOOFER MODULE 2W 4 剩 4P 齣壟 M980NU 瘢稭	6-23-5M980-011	
14	PCB SINGLE HDD BOARD V3.0A M980NU 瘢稭	6-77-M980J-D03A	
15	SCREW M2.5*8L KI BK/Z NY ICT 瘢稭	6-35-B6125-8R0	
16	ANTENNA-BLUETOOTH 2.4G PIFA , L=190MM BT 褺嘯 M980NU 瘢稭	6-23-7M980-040	
17	BOTTOM CASE MODULE M980NU 瘢稭	6-39-M9803-012	
18	CARD READER RUBBER (戀暖 KE-5612GU BLACK 60) M980NU 瘢稭	6-47-M980E-011	
19	SATA DVD SUPER MULTI 24X/8X ASS'Y M980NU 瘢稭	6-79-M980NU0Q-000	
19	SATA BLU-RAY COMBO 5 1/4" 4X ASS'Y M980NU 瘢稭	6-79-M980NU0W-000	
20	PRODUCT LABEL M980NU 瘢稭	6-45-M9803-012	
21	FAN 60*20.5MM 5V 0.5A BS6005M2B 3000RPM A 瘢稭	6-23-AM980-010	
22	DUAL HDD BOARD V3.0 M980NU 瘢稭	6-77-M980K-D03	
23	2IN1 HDD BKT MODULE M980NU 瘢稭	6-33-M980J-100	
24	HDD 3 BKT MODULE M980NU 瘢稭	6-33-M980J-200	
25	BAT.P S LI 14.8V/4650AH/68.82WH 4S1P DERFU/YOKU(POLYMER) 011-CLM980P465BK M980NU 瘢稭	6-87-M980S-4X51	
26	HDD COVER PC+ABS(CM6140) M980NU 瘢稭	6-42-M980J-011	
27	CPU COVER MODULE M980NU 瘢稭	6-42-M980S-102	
28	AUDIO BOARD MYLAR FR83 M980NU 瘢稭	6-40-M980S-020	

Figure A - 3
Bottom

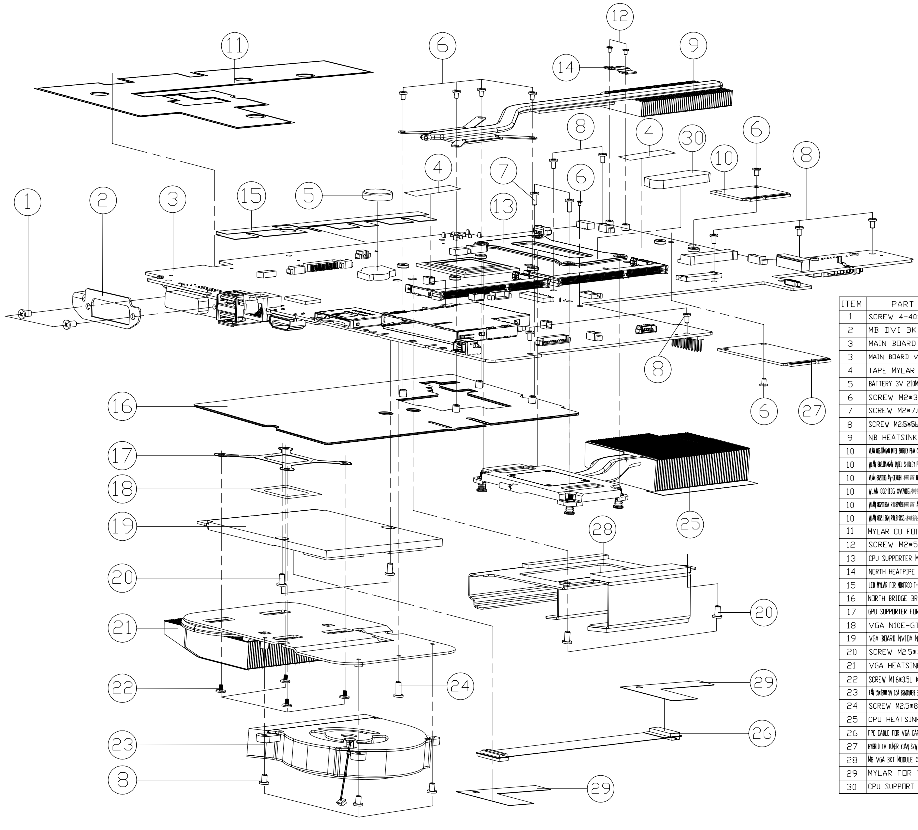
LCD

Figure A - 4
LCD



ITEM	PART NAME	PART NO	REMARK
1	LCD FRONT COVER MODULE M980NU	6-39-M9801-011	
2	LCD SCREW MYLAR M980NU	6-40-M9801-021	
3	SCREW M2*5L K1 NI ICT NY	6-35-B1120-5R0	
4	LCD 18.4" FHD SAMSUNG LTN184HT03-001 (1920X1080) 6.5MM	6-50-PB265-M00	
4	LCD 18.4" FHD CHIMEI N184H4-L01 6.5MM	6-50-PB265-D03	
4	LCD 18.4" FHD CHIMEI N184H4-L04 (1920X1080) 6.5MM	6-50-PB265-D01	
5	SCREW M2.5*8L KI BK/Z NY ICT	6-35-B6125-8R0	
6	SCREW M2.5*5L KI BK/Z ICT NY	6-35-B6125-5RA	
7	LCD HINGE R (SECC+S50C) M980NU	6-33-M9801-022	
8	LOGO PMMA FOR LCD BACK COVER(MR200)	6-42-M9801-032	
9	HINGE CAP RUBBER SILICONE 80 M980NU	6-47-M9801-020	
10	SCREW M2*3L K1 NI ICT NY	6-35-B1120-3RA	
11	* SCREW M2*3L K1 NI ICT GTY-PATCH	6-35-B1120-3RE	
12	POWER BUTTON BOARD V3.0A M980NU	6-77-M980W-D03A	
13	WIRE CABLE FOR M/B TO POWER-BOTTOM 3P M980NU	6-43-M9800-020	
14	WIRE CABLE FOR M/B TO LCD 30P M980NU V2.0	6-43-M9801-011	
15	LCD BRACKET TOP SECC M980NU	6-33-M9801-011	
16	LCD HINGE L(SECC+S50C) M980NU	6-33-M9801-032	
17	WIRE CABLE FOR M/B TO DIG-MIC 4P M980NU V2.0	6-43-M9804-011	
18	ANTENNA WIMAX 2.4G/3.7G/5G PCB WM1 735MM M980NU	6-23-7M980-011	
19	ANTENNA WIMAX 2.4G/3.7G/5G PCB WM3 805MM M980NU	6-23-7M980-031	
20	UVC CAMERA BISON FIX BN2824S7-010 2M M740T	6-88-M740C-4913	(OPTION)
21	WIRE CABLE FOR M/B TO CCD 5P M980NU V2.0	6-43-M980T-021	
22	DIGITAL-MIC MODULE DK-A02 FOR M980NU	6-23-EM980-010	
23	ANTENNA WIMAX 2.4G/3.7G/5G PCB WM2 695MM M980NU	6-23-7M980-021	
24	WIRE CABLE FOR M/B TO LOGO-LIGHT 6P M980NU	6-43-M9800-031	
25	LOGO LED BOARD V3.0A M980NU	6-77-M9806-D03A	
26	LIGHT GUIDE FOR LCD BACK COVER M980NU	6-42-M9801-080	
27	LCD BACK COVER MODULE M980NU	6-39-M9801-022	
28	ANTENNA SPONGE (8*7*4) (SPONGE+3M9448) M980NU	6-47-0019A-080	
29	LCD PROTECT MYLAR(PET+3M8915) M980NU	6-40-M9801-040	

Mainboard



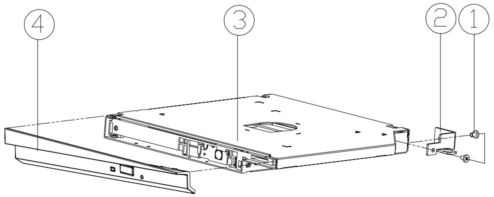
ITEM	PART NAME	PART NO	REMARK
1	SCREW 4-40*5L K NI ACT NY	6-35-81304-5R0	
2	MB DVI BKT SECC M980NU	6-33-M980S-021	
3	MAIN BOARD V3.0A M980NU	6-77-M9800-D03A	
3	MAIN BOARD V3.0A(W/TPM) M980NU	6-77-M9800-D03A-1	
4	TAPE MYLAR (C),MYLAR M550J	6-40-M55J2-030	
5	BATTERY 3V 210MA CR2032 (MITSUBISHI)	6-23-62015-607	
6	SCREW M2*3L K1 NI ICT NY	6-35-B1120-3RA	
7	SCREW M2*7.0L K1 NI ICT NY	6-35-B1120-7RA	
8	SCREW M2.5*5L KI BK/Z ICT NY	6-35-B6125-5RA	
9	NB HEATSINK MODULE M980NU	6-31-M980N-101	
10	WLAN 802.11A+G+N INTEL SHIRLEY PEAK (WIFI LINK 5300) 3X3 MINI-CARD PCI-E	6-88-M72T2-4210	(OPTION)
10	WLAN 802.11A+G+N INTEL SHIRLEY PEAK 1X2 MINI-CARD PCI-E FOR MOW	6-88-M72T2-4240	(OPTION)
10	WLAN 802.11BG AW-GE703H HALF MINI-CARD PCI-E RTL8187SE LABLE M80IL	6-88-M8102-7001	(OPTION)
10	WLAN 802.11BG XW701E HALF MINI-CARD PCI-E RTL8187SE	6-88-M8102-8700	(OPTION)
10	WLAN 802.11BGN RTL8191SE AW-NE104H HALF MINI-CARD PCI-E RTL8191SE W760C	6-88-W76C2-7000	(OPTION)
10	WLAN 802.11BGN RTL8191SE XW714E HALF MINI-CARD PCI-E RTL8191SE W760C	6-88-W76C2-8700	(OPTION)
11	MYLAR CU FOIL FOR MB M980NU	6-40-M980S-081	
12	SCREW M2*5L K1 NI ICT NY	6-35-B1120-5R0	
13	CPU SUPPORTER MODULE M570TU (ESD)	6-33-M570S-102	
14	NORTH HEATPIPE BRACKET SECC M980NU	6-33-M980S-080	
15	LED MYLAR FOR NBKFR83 T=0.075+NITTO 5011N T=0.15 MM) M980NU	6-40-M980S-060	
16	NORTH BRIDGE BRACKET MODULE M980NU	6-33-M980S-071	
17	GPU SUPPORTER FOR N10E GTX1 SUS430 D900F	6-33-D90FS-020	
18	VGA N10E-GTX1 MYLAR D900F	6-40-D90FS-050	
19	VGA BOARD NVIDA N10E-GTX1 DDR3 1GB/32M*32	6-77-M57NL-101-A	(OPTION)
20	SCREW M2.5*3L K1 BZ ICT NY-	6-35-B6125-3R0	
21	VGA HEATSINK MODULE M980NU	6-31-M980N-203	
22	SCREW M1.6*3.5L K(T=1.2 D=4.5) BZ ICT NY	6-35-82116-3R5	
23	FAN 55*12MM 5V 0.5A BS6005M2B 3300RPM AP FOR M980NU VGA	6-23-AM980-020	
24	SCREW M2.5*8L KI BK/Z NY ICT	6-35-B6125-8R0	
25	CPU HEATSINK MODULE M980NU	6-31-M980S-101	
26	FPC CABLE FOR VGA CARD 40P MCP79_SLI V2.0 M980NU	6-43-M980L-011	ONLY FOR TWO VGA CARD
27	HYBRID TV TUNER YUAN S/W MC770A MCE MINI-CARD M570RU(DVB-T)	6-88-M57R7-6540	(OPTION)
28	MB VGA BKT MODULE (SECC+SILICON60+G4000) M980NU	6-33-M980S-050	ONLY FOR ONE VGA CARD
29	MYLAR FOR VGA SLI M980NU	6-40-M9800-010	ONLY FOR TWO VGA CARD
30	CPU SUPPORT PORON L32 M980NU	6-47-M980S-010	

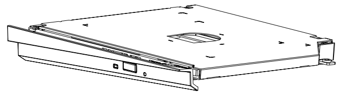
Figure A - 5
Mainboard

A.Part Lists

Blu-Ray Combo

Figure A - 6
Blu-Ray Combo

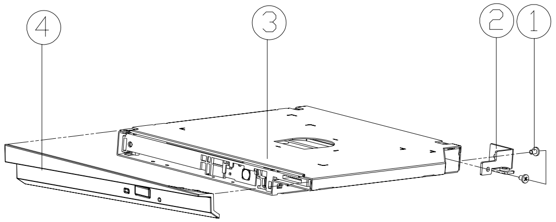


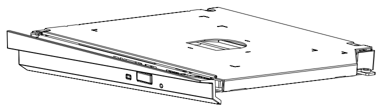


ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*2.5L KI NI ICT NY (Ø4 t=0.3)- 瘢稭	6-35-B1120-2R5	
2	CD ROM BRACKET SECC M980NU瘢稭	6-33-M980Z-010	
3	SATA BLU-RAY WRITER 5 1/4" 12.7MM MAX. 4X 瘢稭	6-85-B074X-P20	
3	[illegible]	6-85-B072X-P11	
4	BLUE RAY G-BEZEL MODULE M980NU 瘢稭	6-42-M980W-101	

DVD Super Multi

Figure A - 7
DVD Super Multi





ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*2.5L KI NI ICT NY (ø4 t=0.3)- 瘢稽	6-35-B1120-2R5	
2	CD ROM BRACKET SECC M980NU瘢稽	6-33-M980Z-010	
3	[illegible]	6-85-A0724-C01	
3	[illegible]	6-85-A0724-T03	
3	SATA DVD SUPER MULTI 5 1/4" 24X / 8X 12.7M 瘢稽	6-85-A0724-501	
4	SUPER MULTI G-BEZEL MODULE M980NU 瘢稽	6-42-M980Q-101	

A.Part Lists

Appendix B: Schematic Diagrams

This appendix has circuit diagrams of the ***M980NU*** notebook's PCB's. The following table indicates where to find the appropriate schematic diagram.

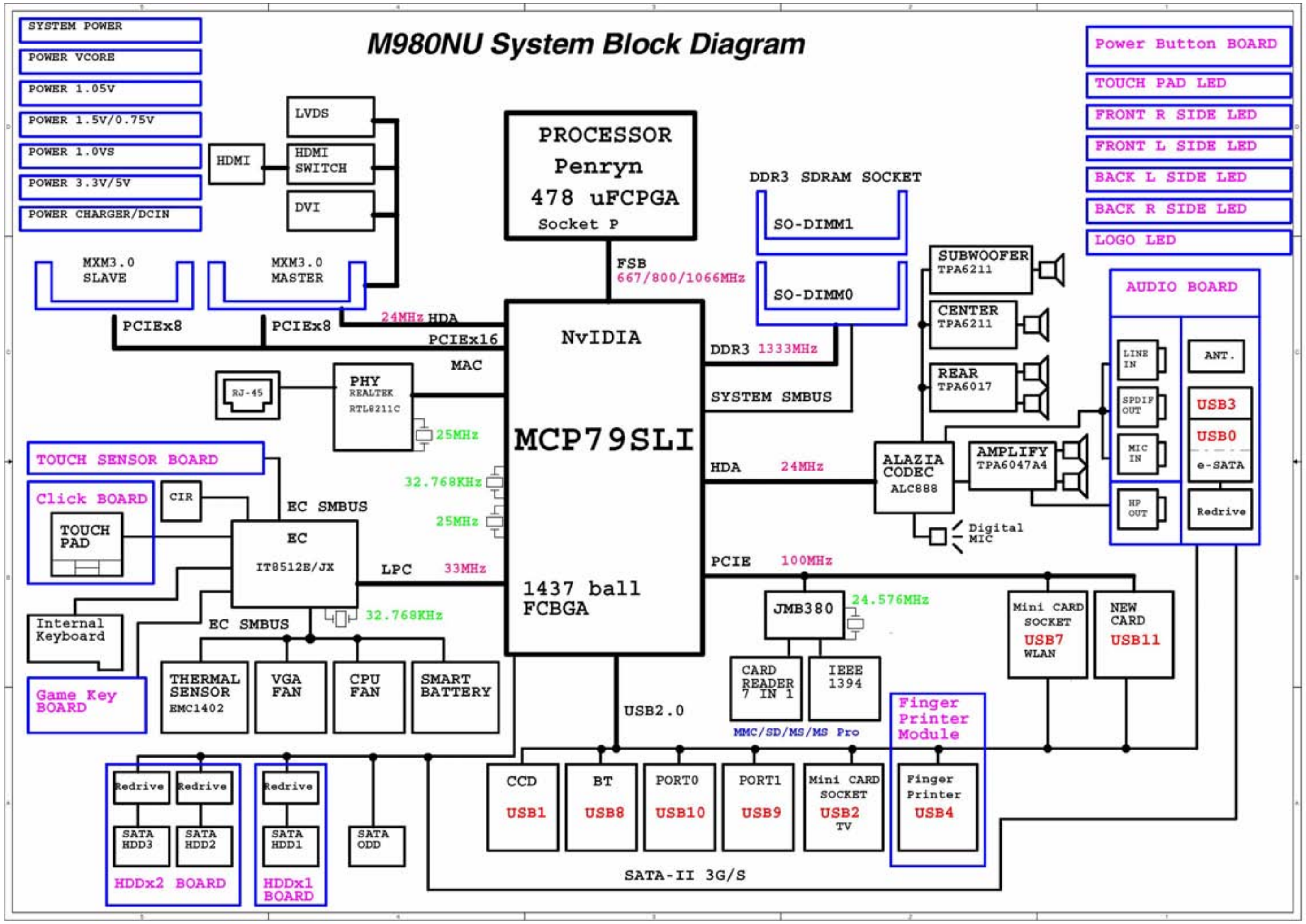
Table B - 1
Schematic Diagrams

Version Note

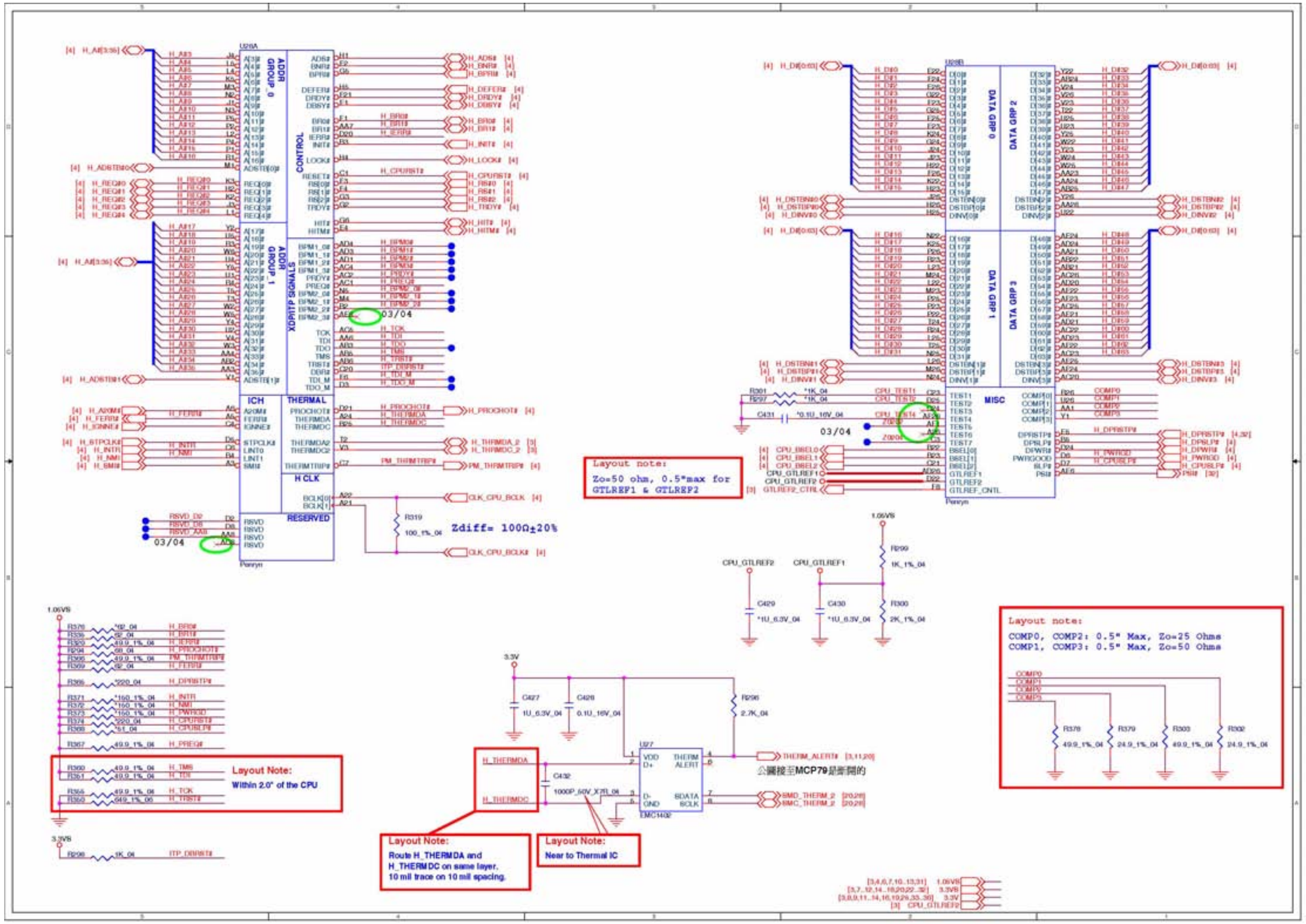
The schematic diagrams in this chapter are based upon version 6-7P-M980F-002. If your mainboard (or other boards) are a later version, please check with the Service Center for updated diagrams (if required).

System Block Diagram

Sheet 1 of 53
System Block Diagram



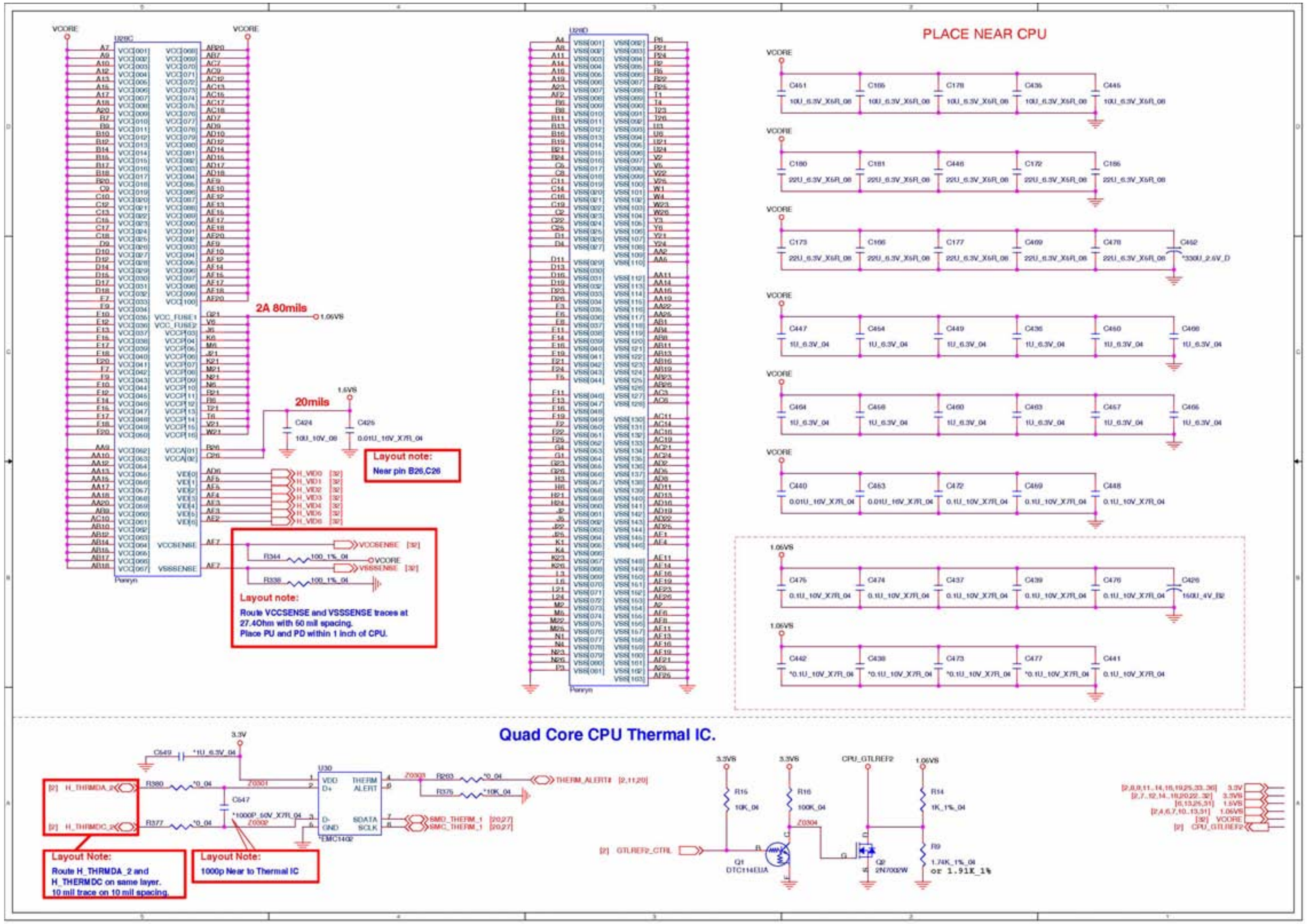
PENRYN 1/2



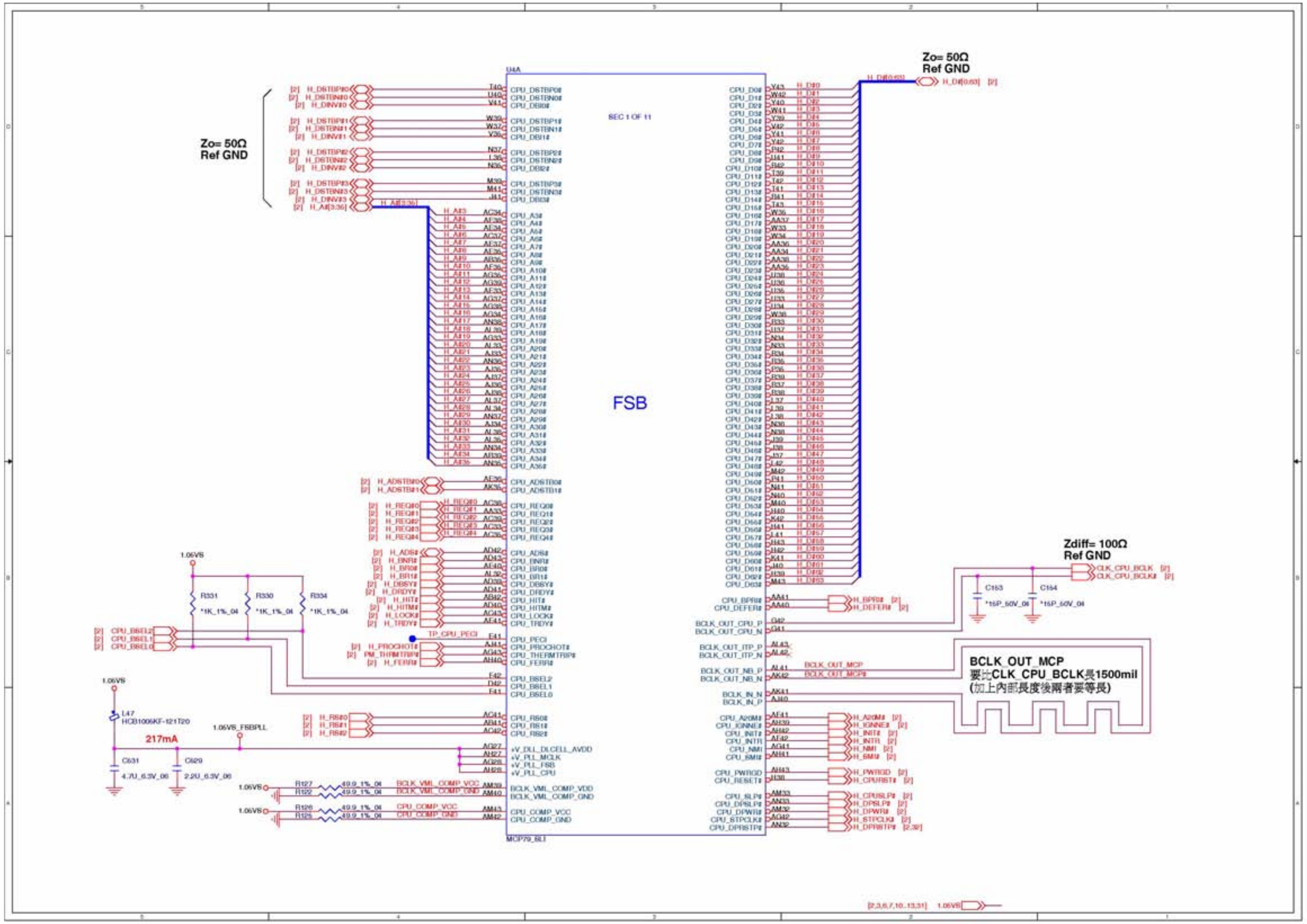
Sheet 2 of 53
PENRYN 1/2

PENRYN3 2/2

Sheet 3 of 53
PENRYN 2/2



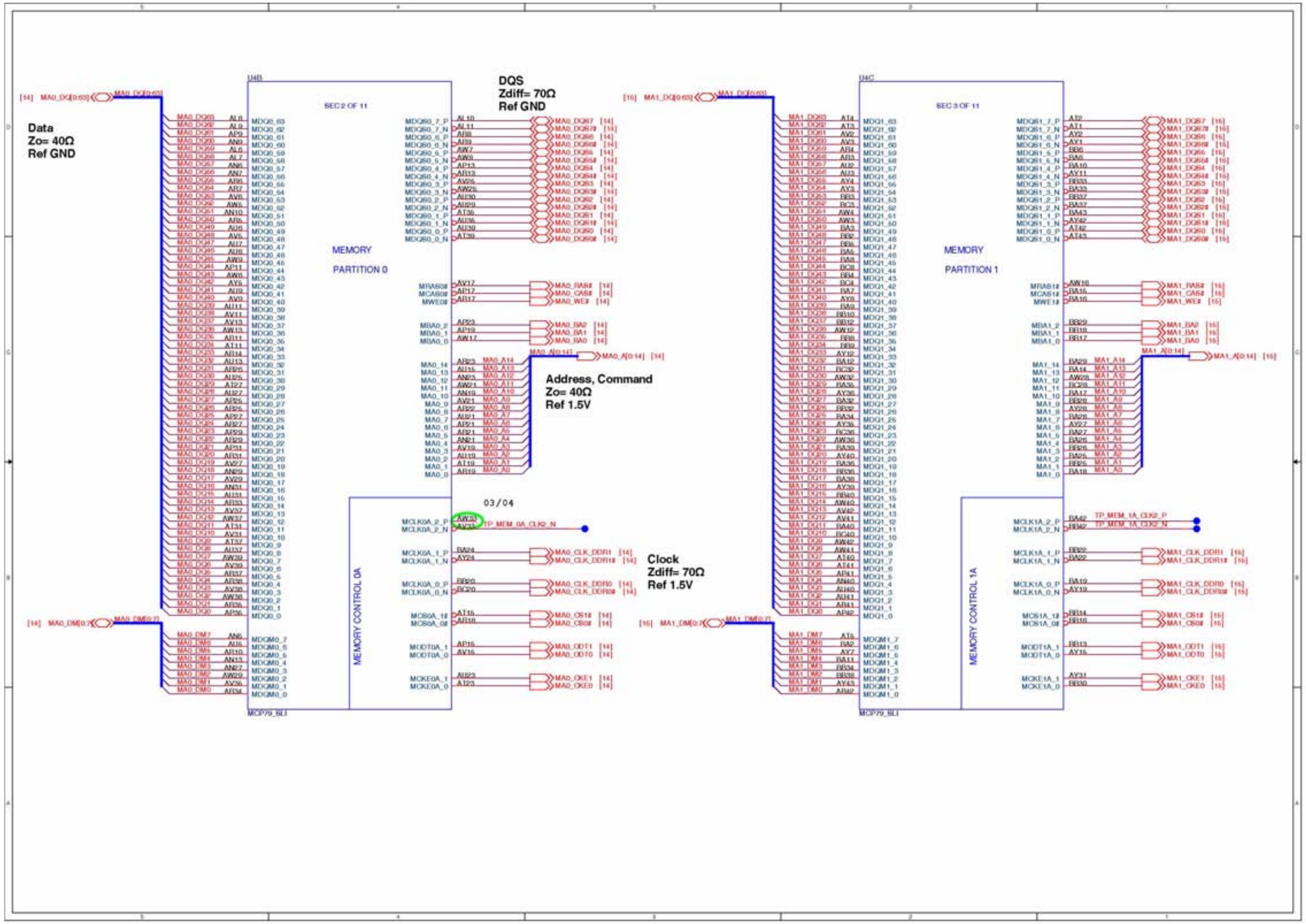
MCP79 FSBI



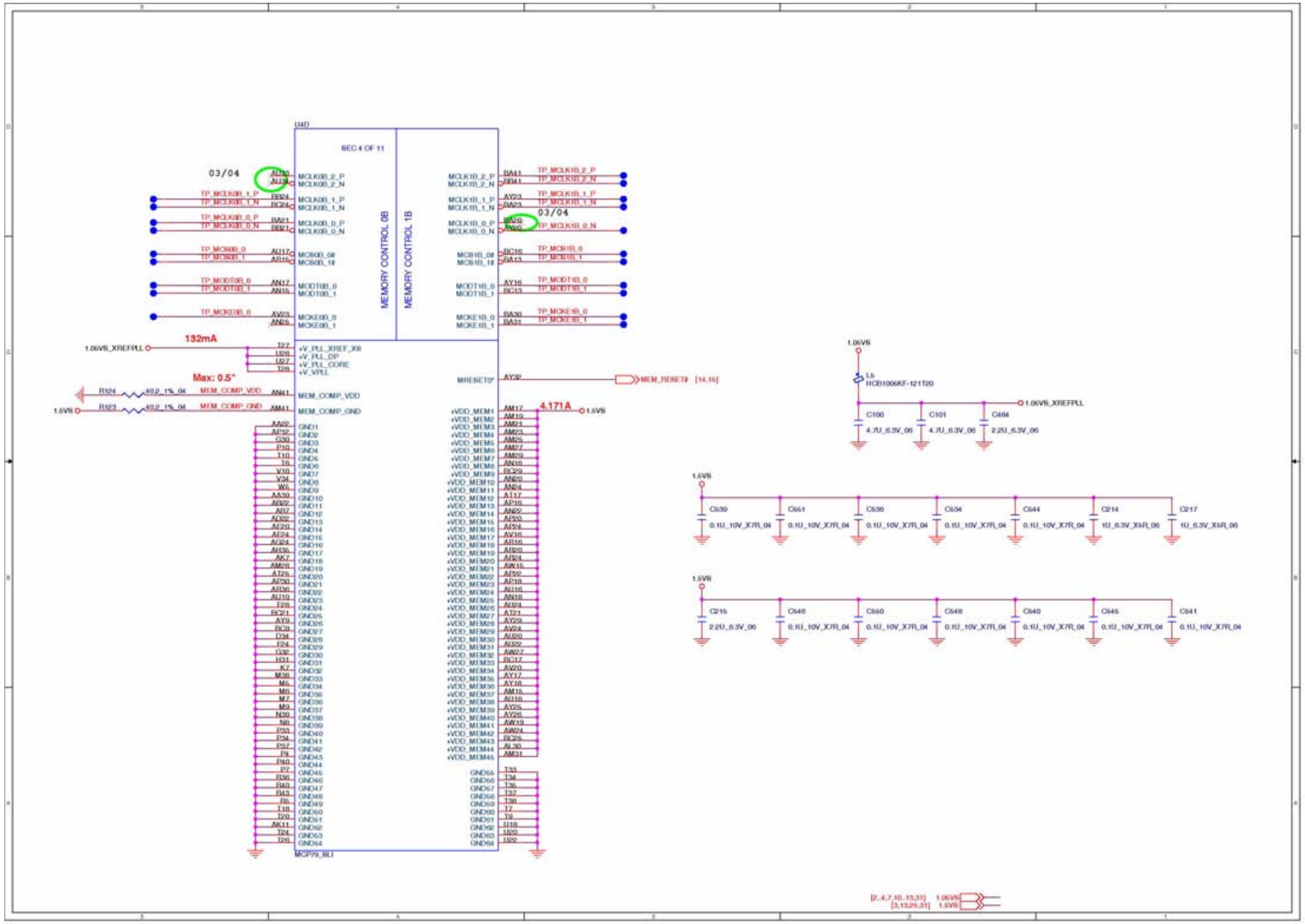
Sheet 4 of 53
MCP79 FSB

MCP79 MEM CTRL (1)

Sheet 5 of 53
MCP79 MEM CRTL
(1)



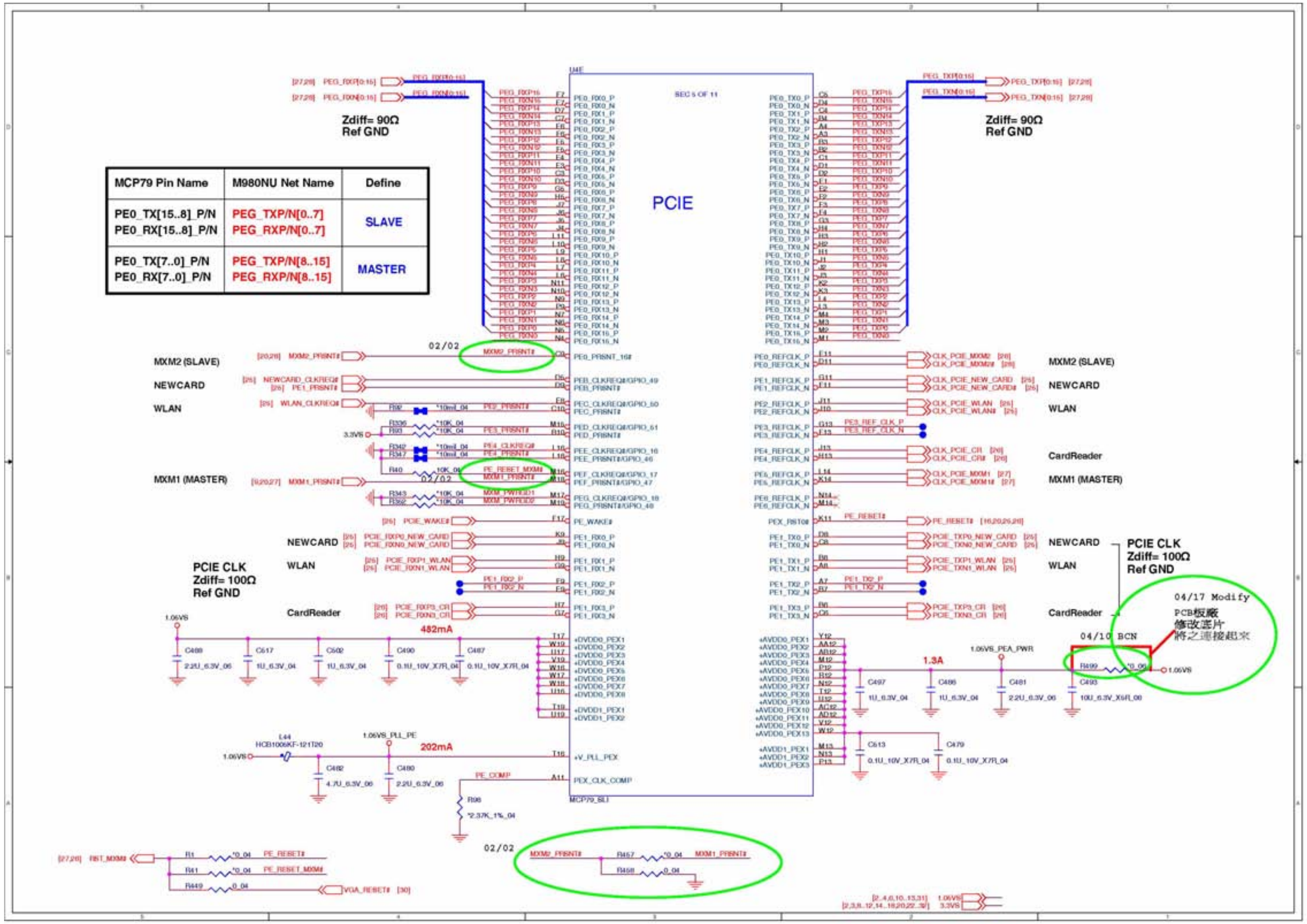
MCP79 MEM CTRL (2)



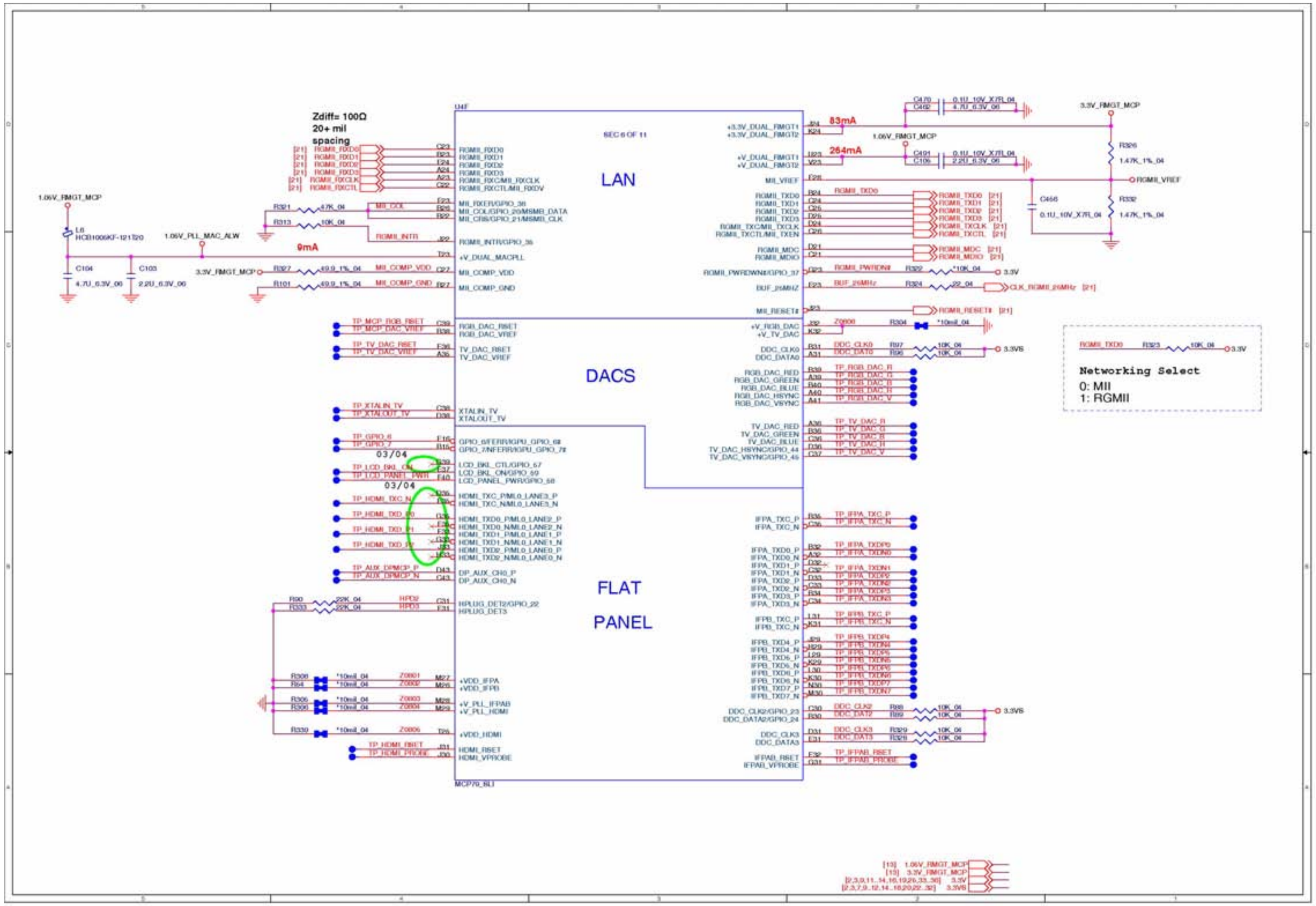
Sheet 6 of 53
MCP79 MEM CRTL
(2)

MCP79 PCI-E

Sheet 7 of 53
MCP79 PCI-E



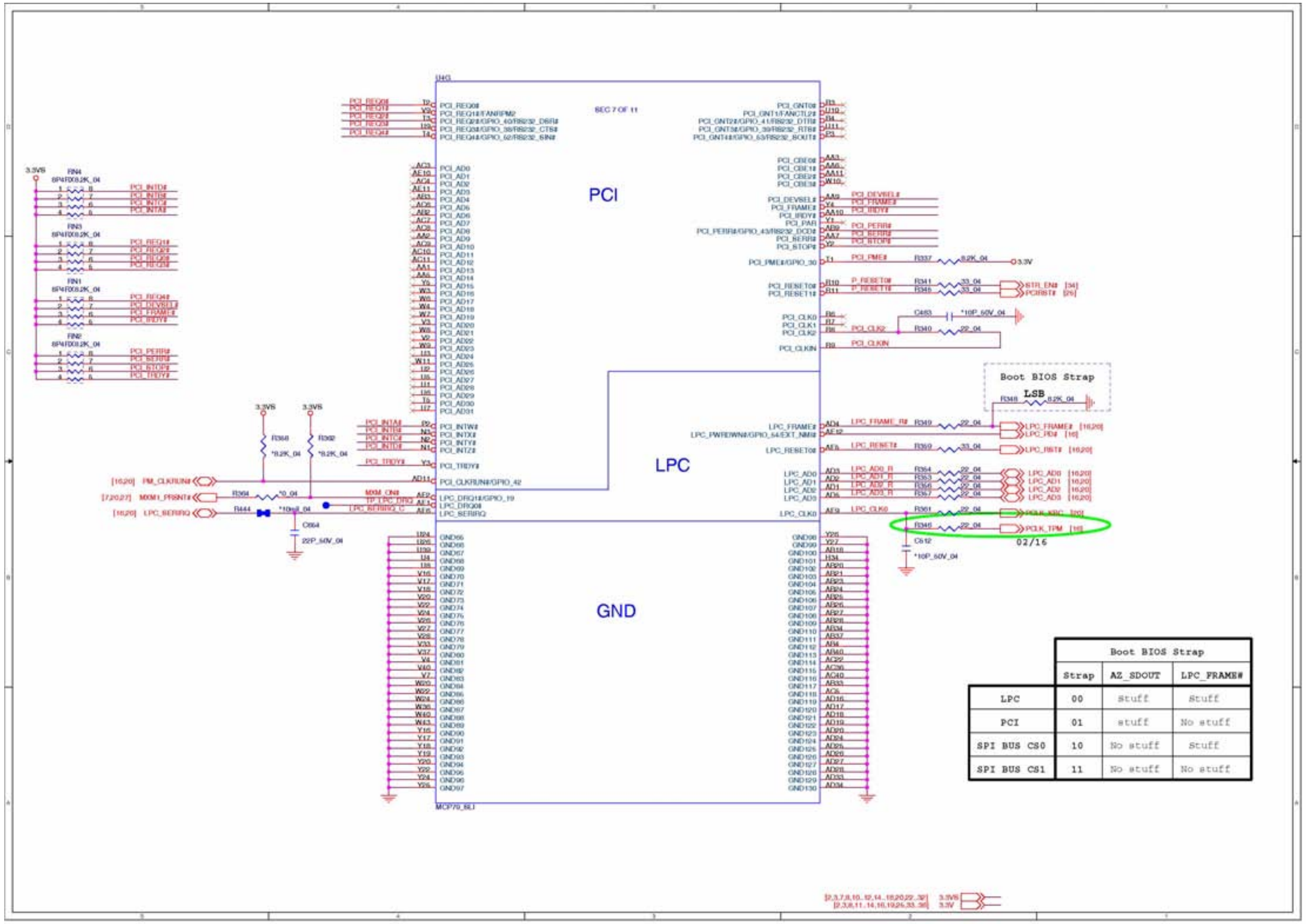
MCP79 LAN, Panel



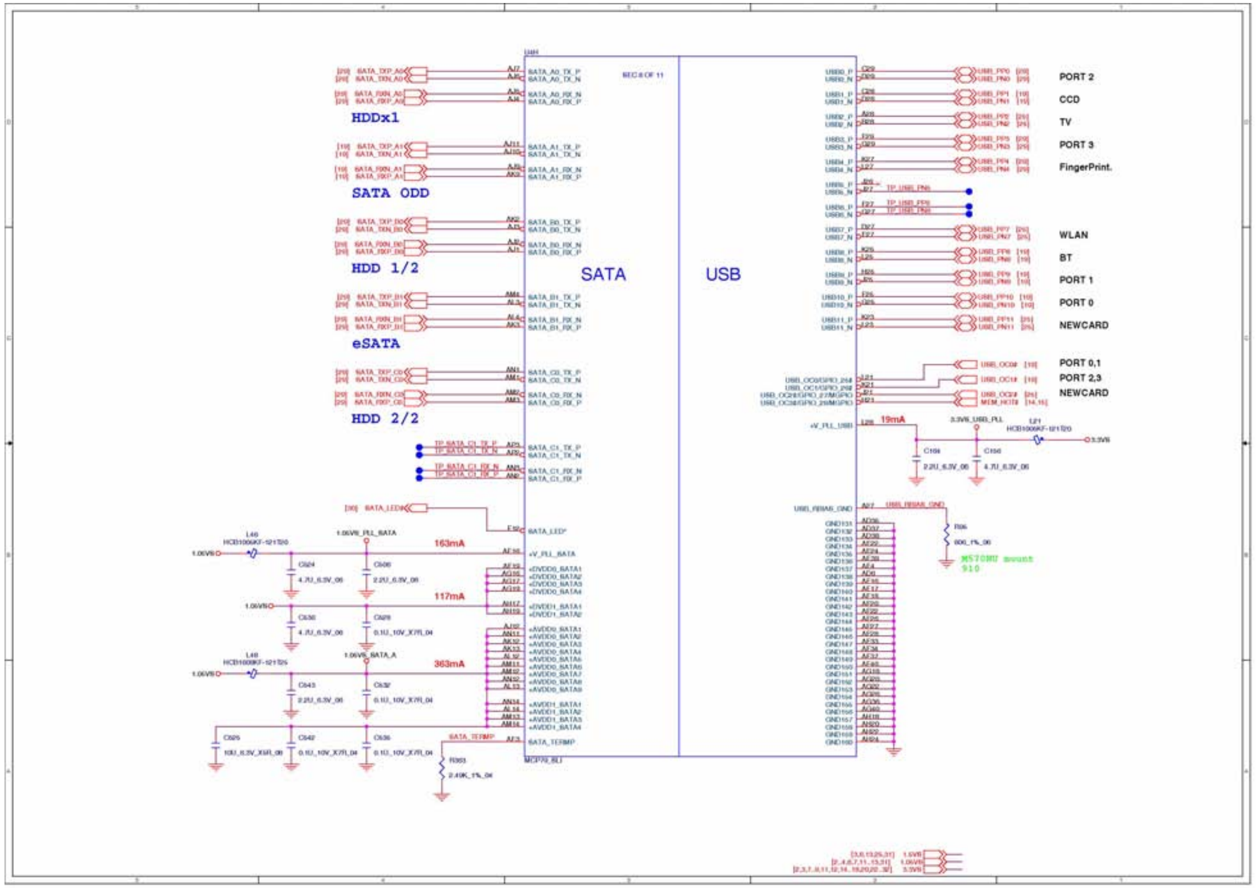
Sheet 8 of 53
MCP79 LAN, Panel

MCP79 PCI, LPC

Sheet 9 of 53
MCP79 PCI, LPC



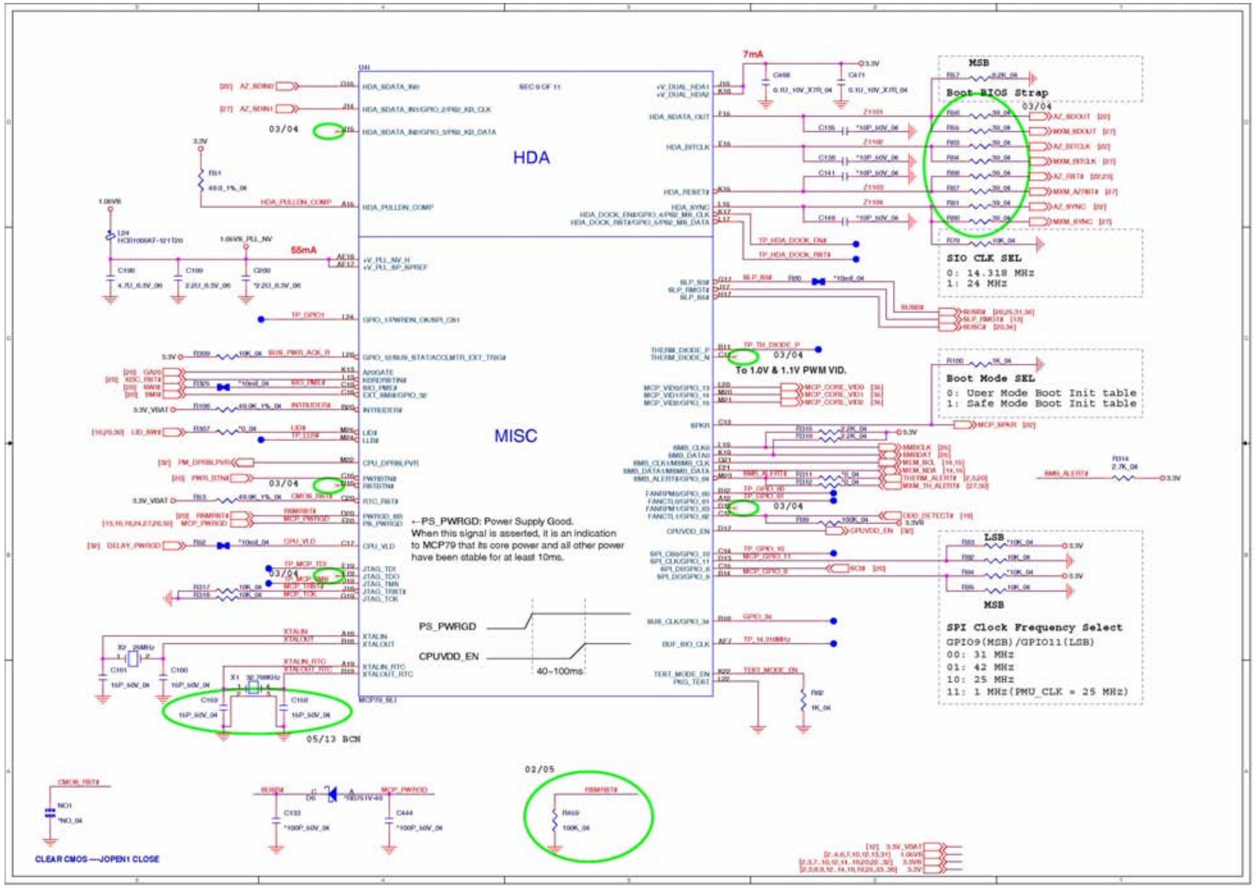
MCP79 SATA, USB



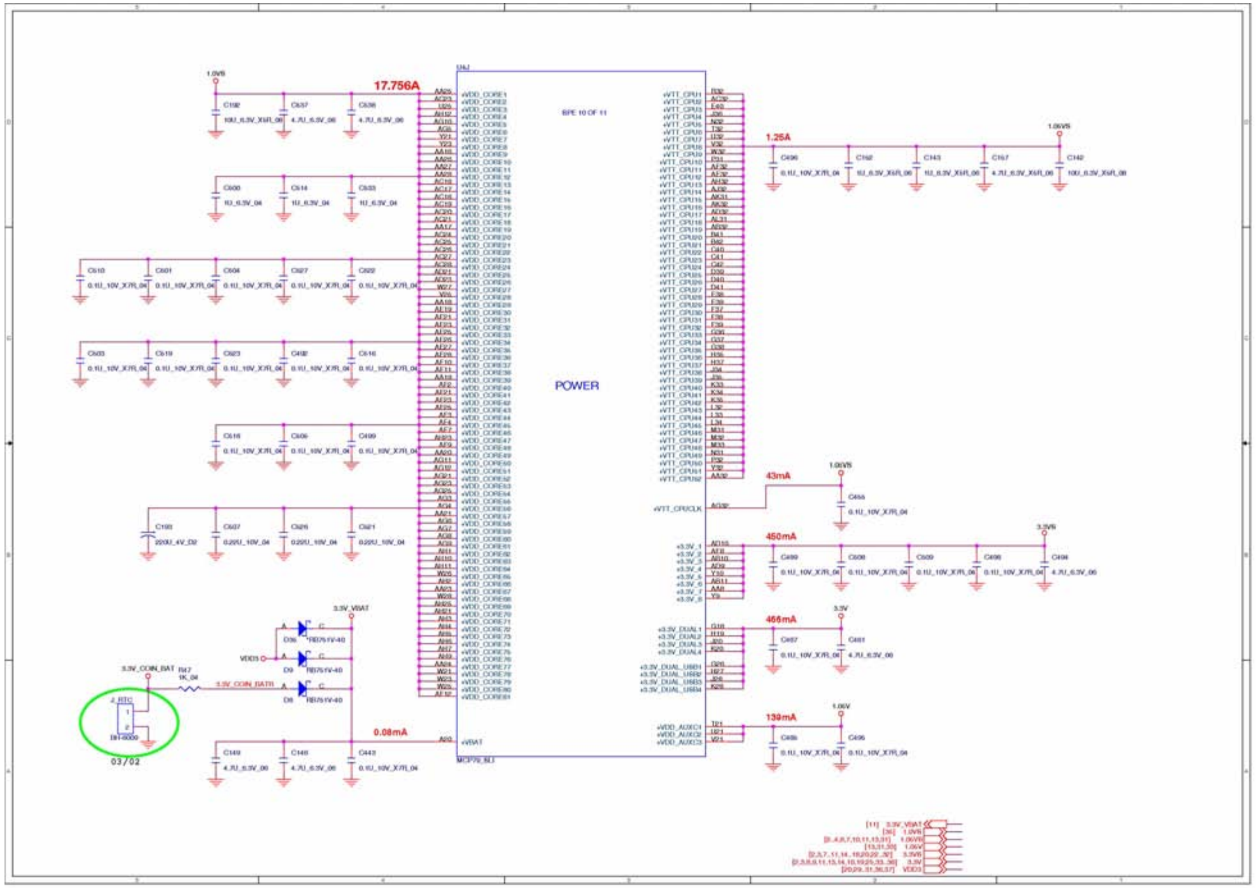
Sheet 10 of 53
MCP79 SATA, USB

MCP79 HDA, Misc

Sheet 11 of 53
MCP79 HDA, Misc



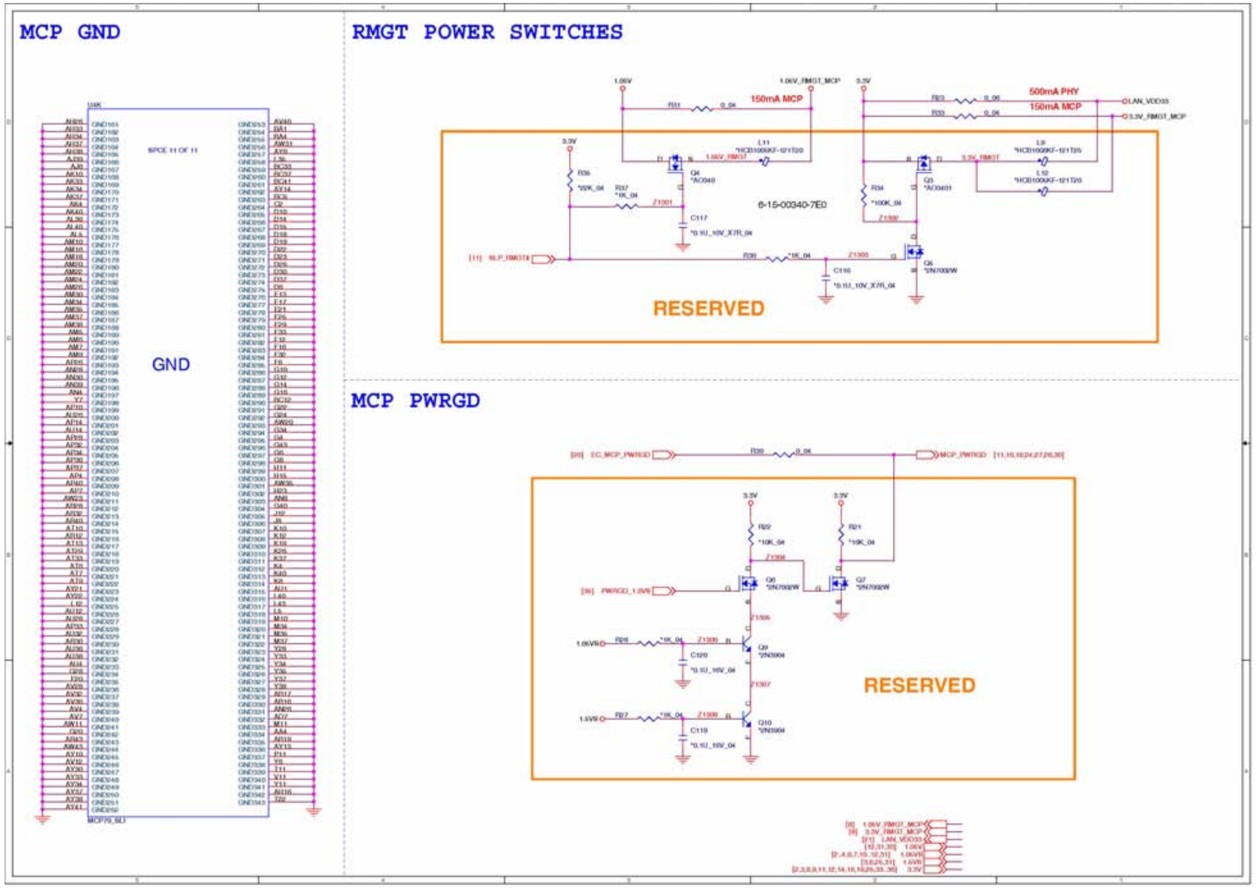
MCP79 Power



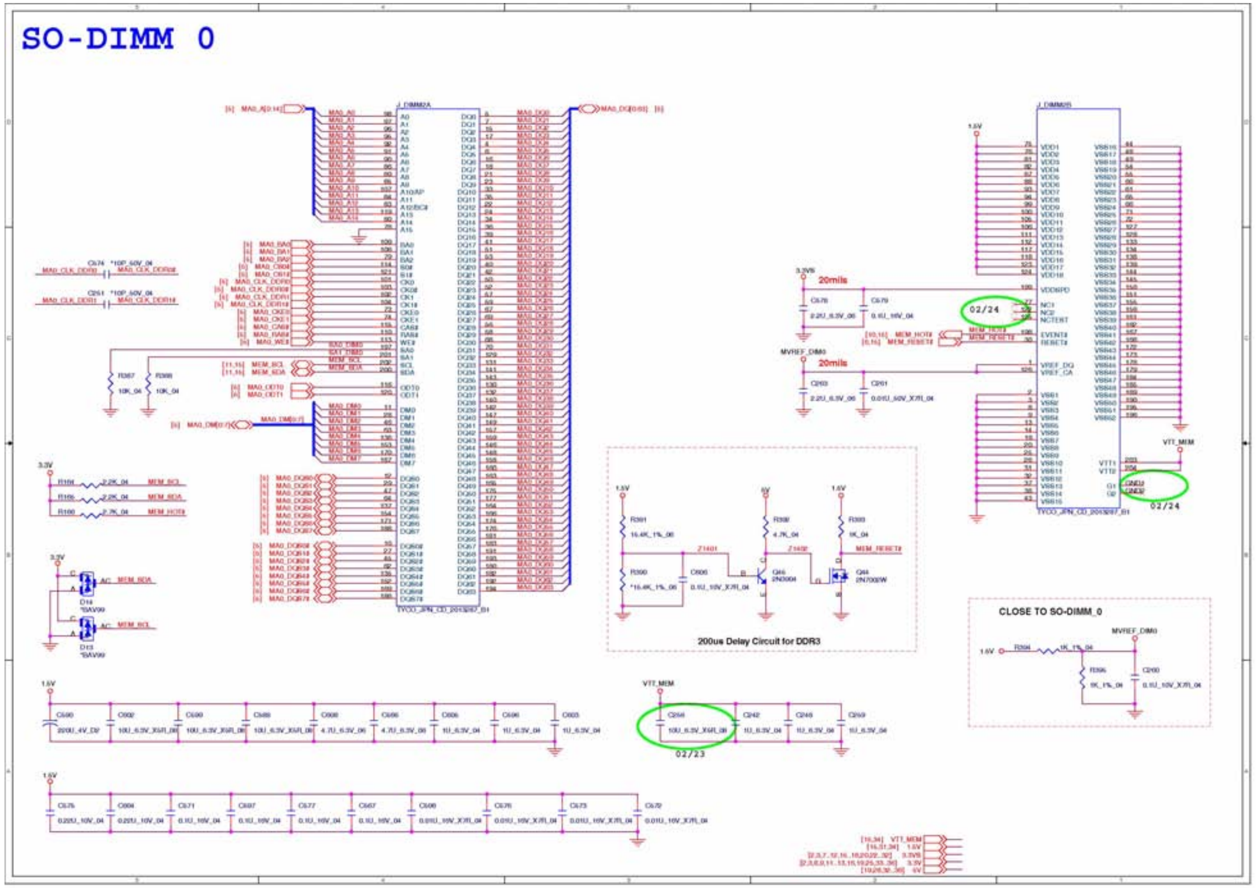
Sheet 12 of 53
MCP79 Power

MCP79 GND, RMGT PWR, PWRGD

Sheet 13 of 53
MCP79 GND, RMGT PWR, PWRGD



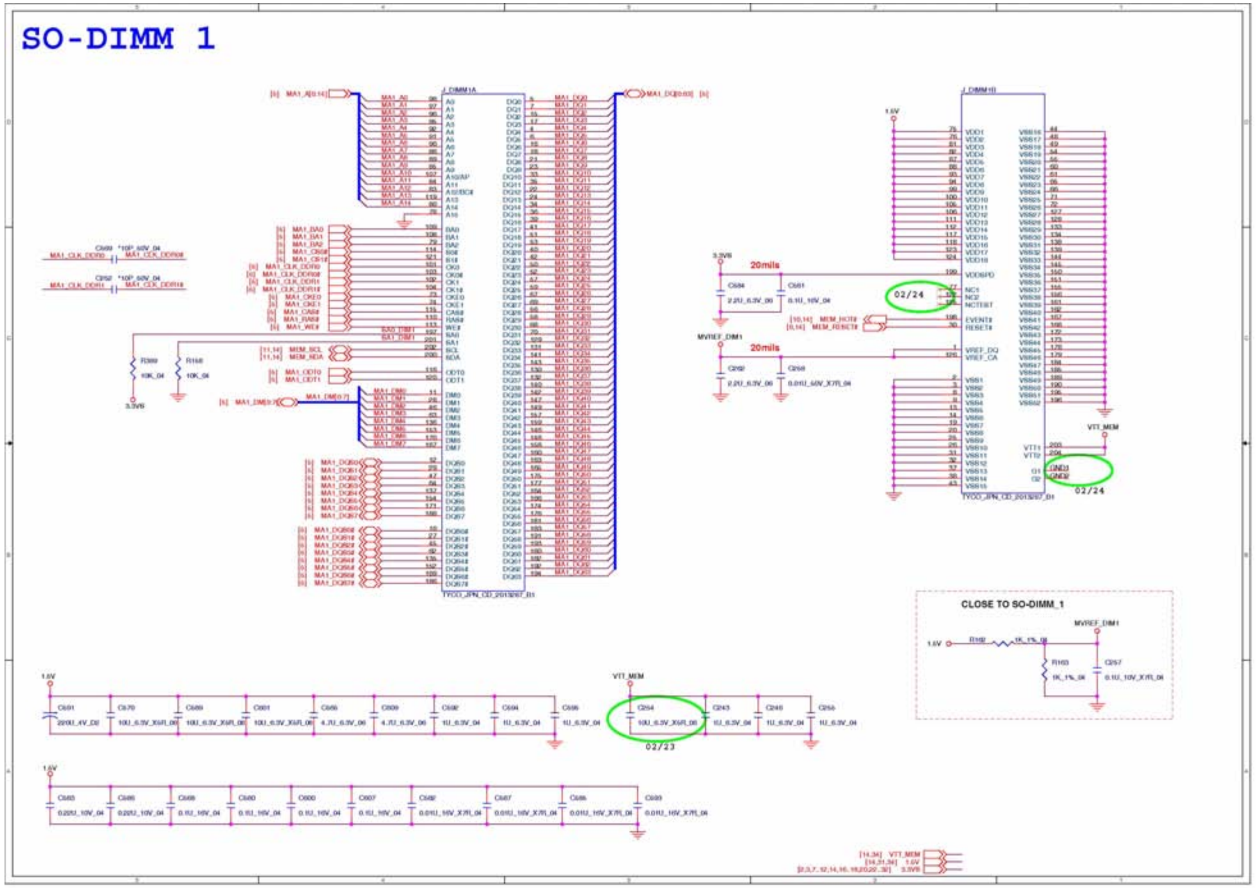
DDR3 SO-DIMM_0



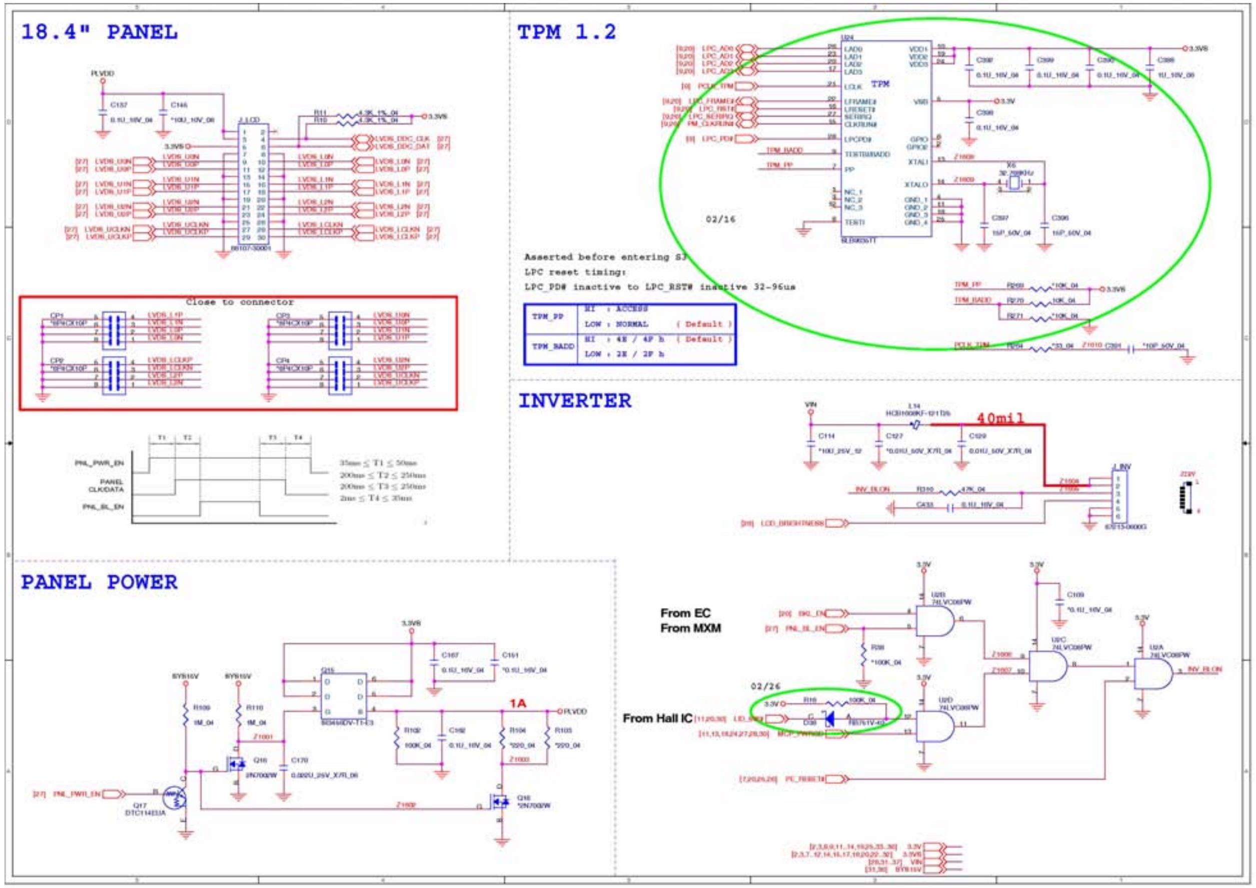
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DDR3 SO-DIMM_0

DDR SO-DIMM_1

Sheet 15 of 53
DDR3 SO-DIMM_1



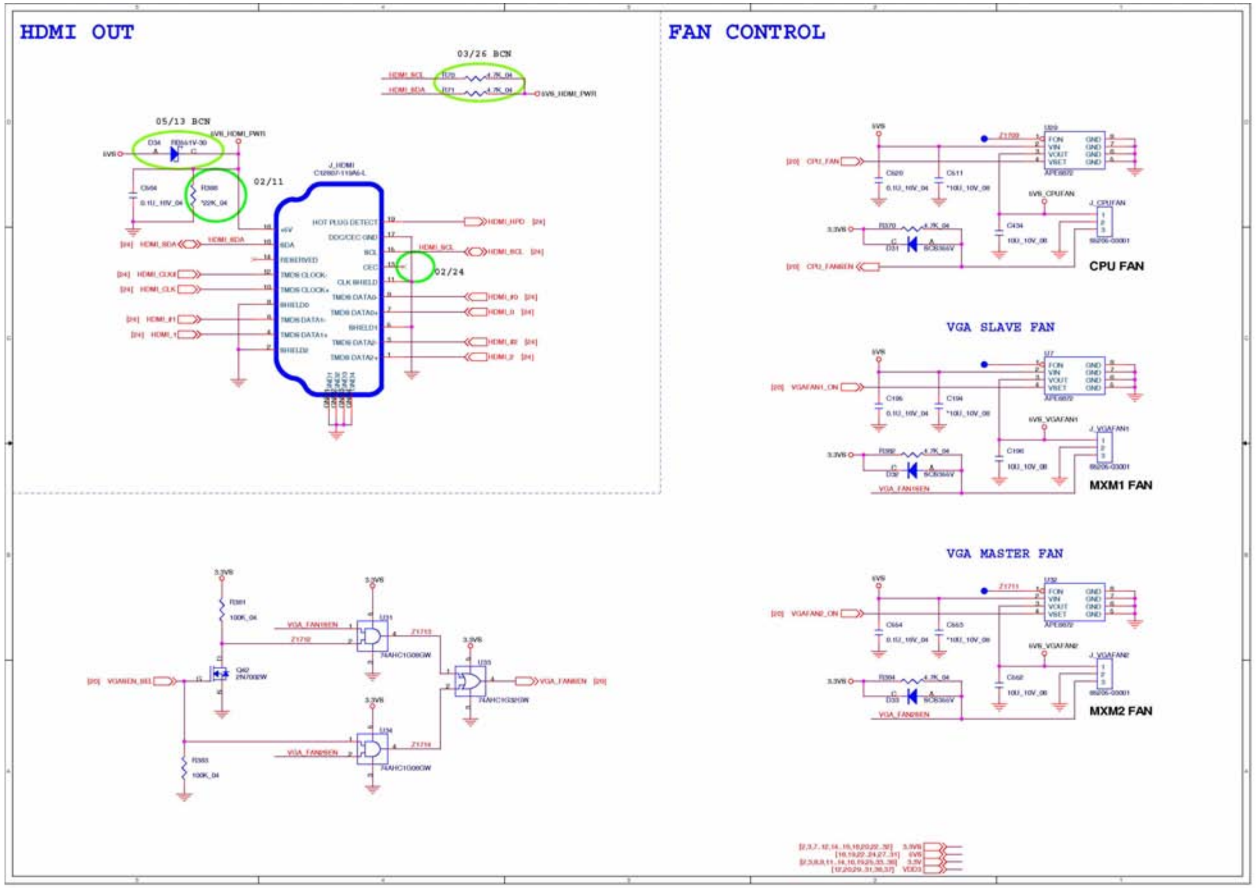
Panel, Inverter, TPM



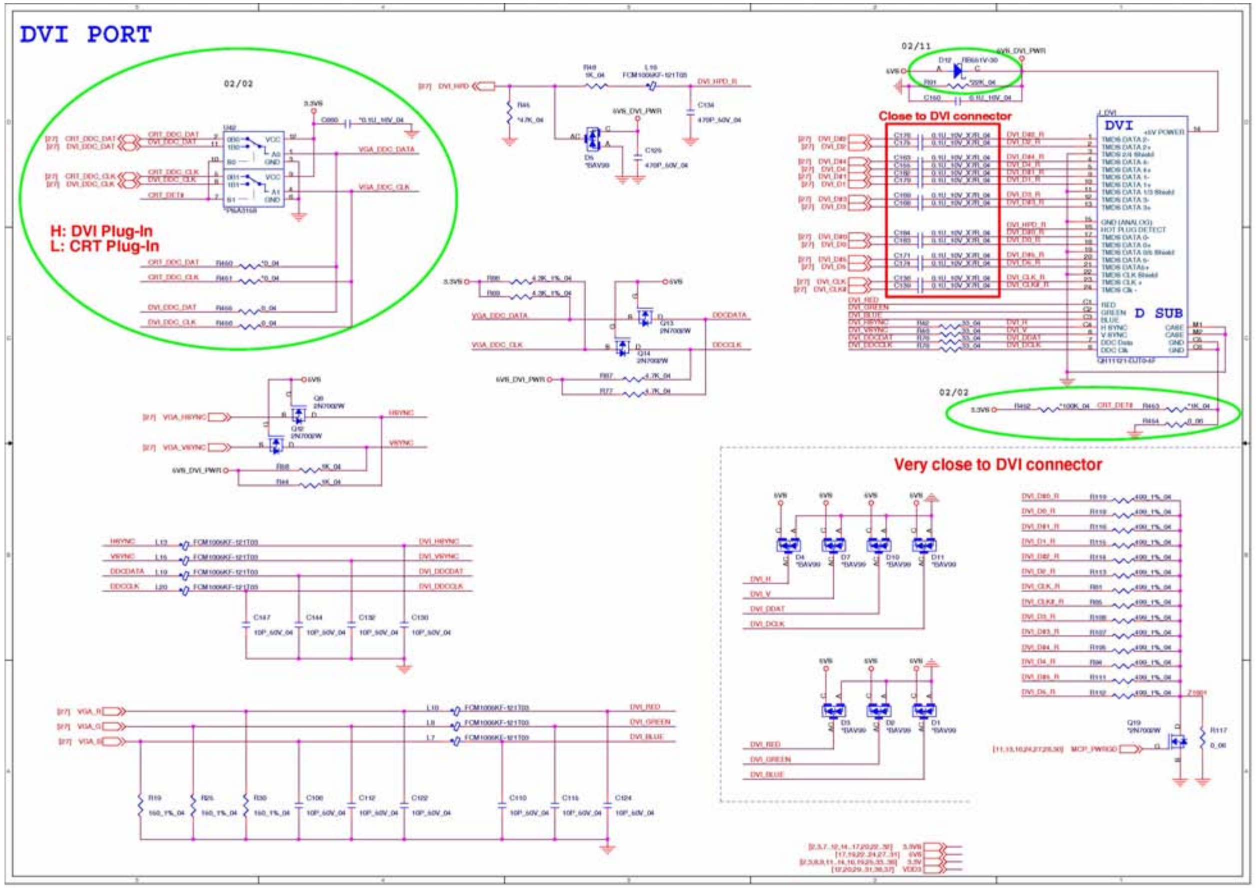
Sheet 16 of 53
Panel, Inverter,
TPM

HDMI, Fan Control

Sheet 17 of 53
HDMI, Fan Control



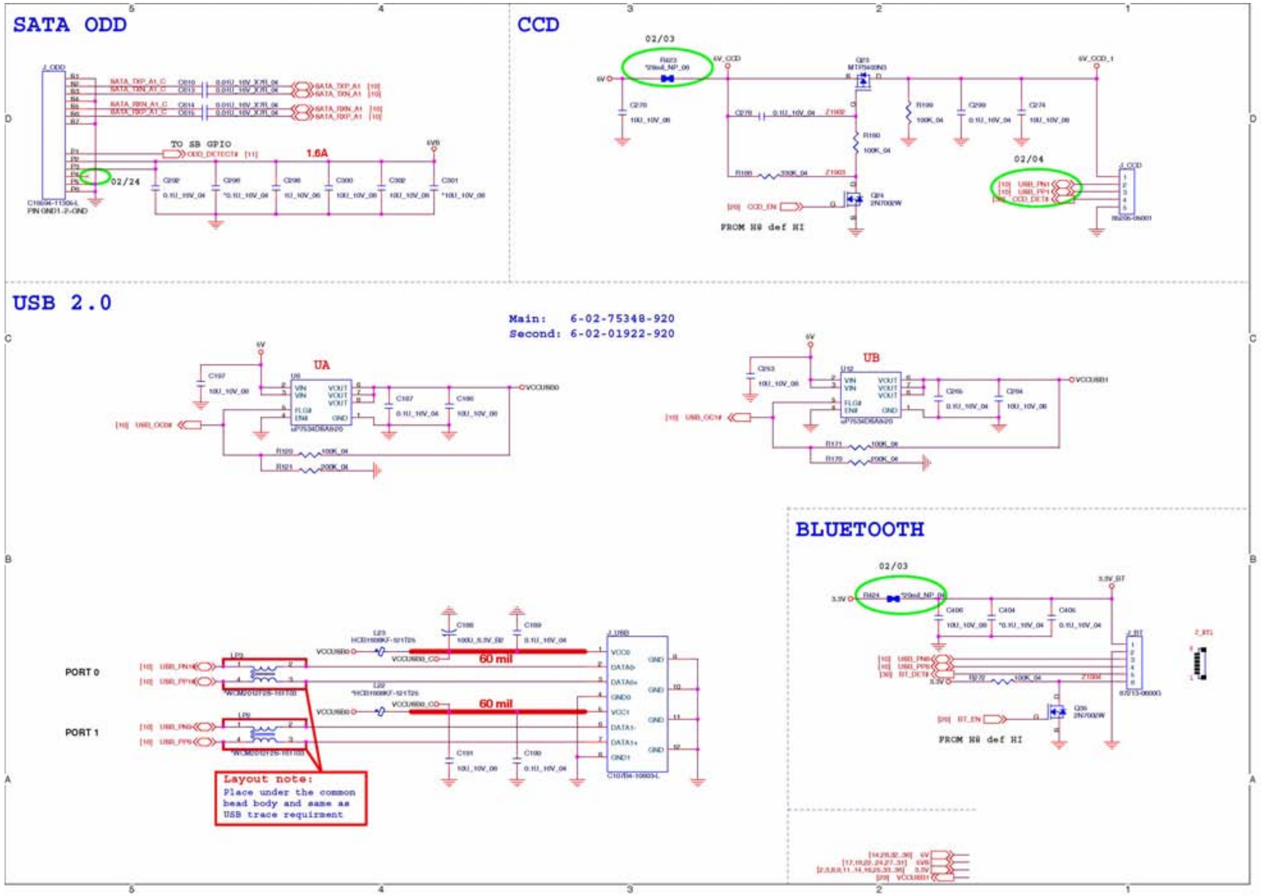
CRT, DVI



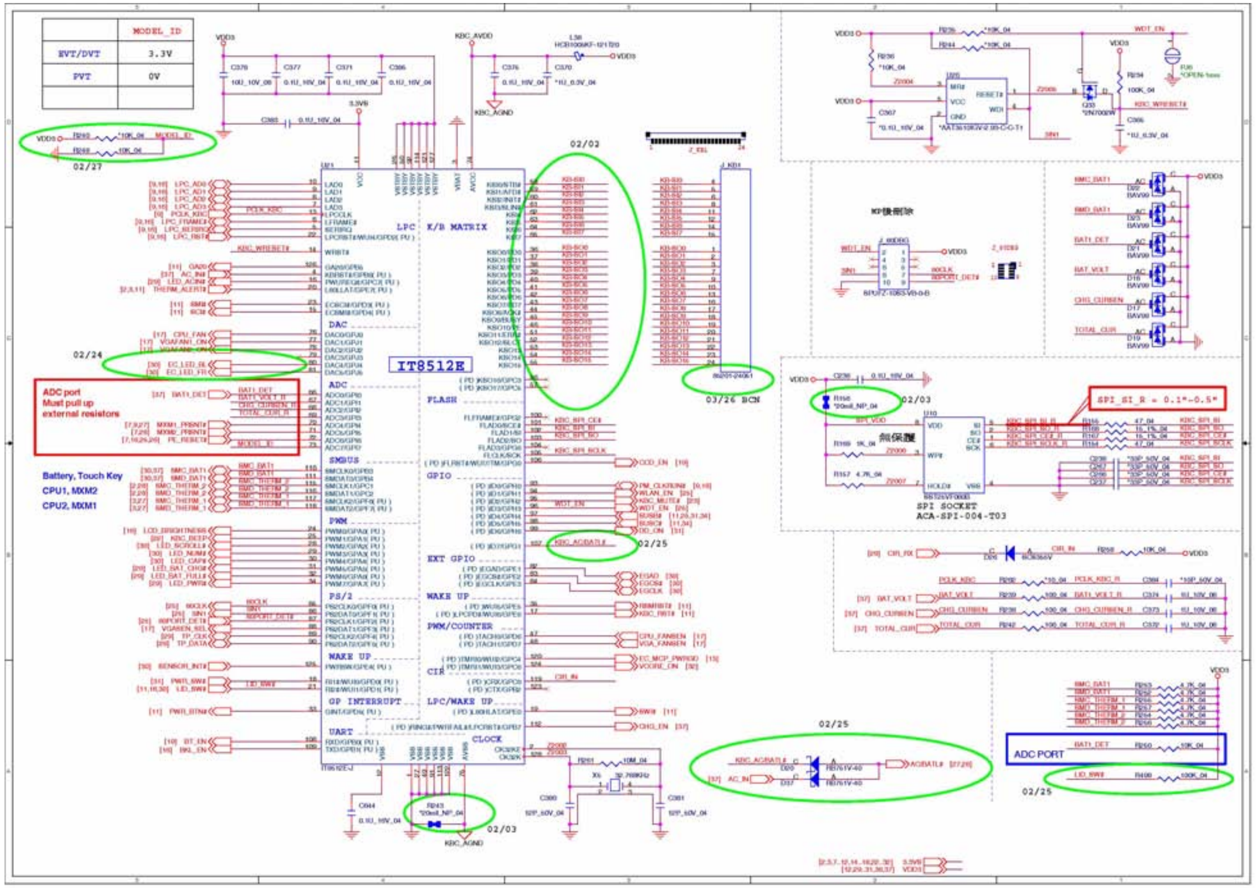
Sheet 18 of 53
CRT, DVI

ODD, CCD, BT, USB 2.0

Sheet 19 of 53
ODD, CCD, BT,
USB 2.0



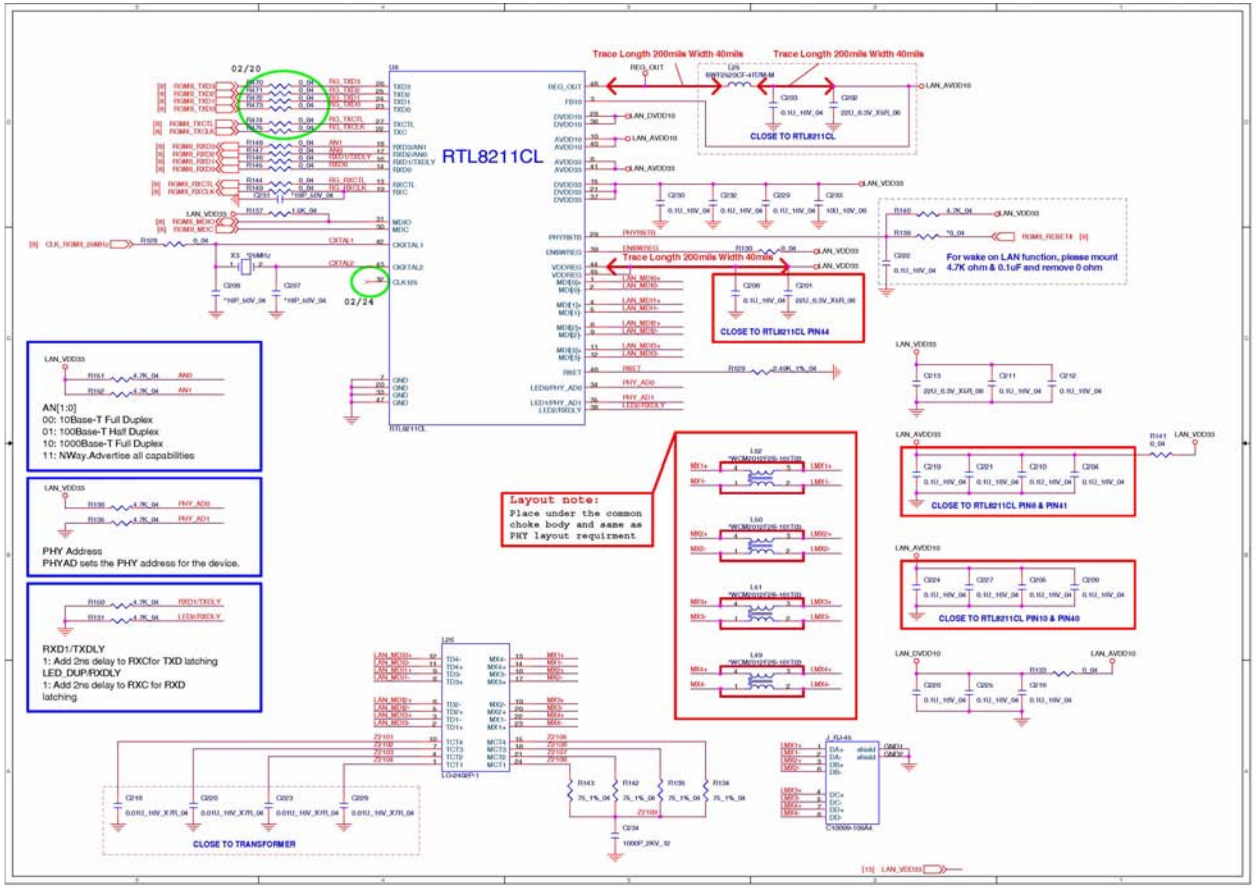
KBC ITE IT8512-J



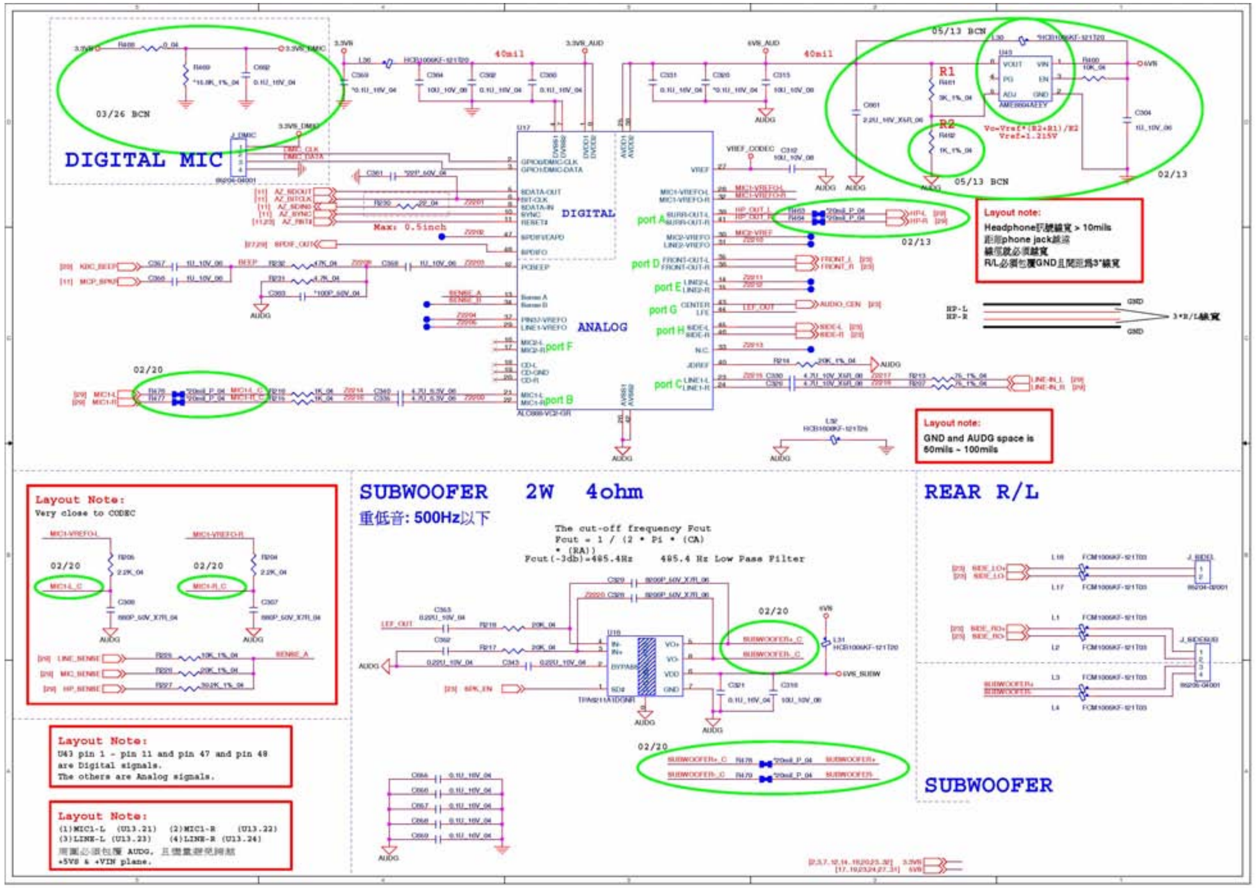
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KBC ITE IT8512-J

PHY RTL8211CL

Sheet 21 of 53
PHY RTL8211CL



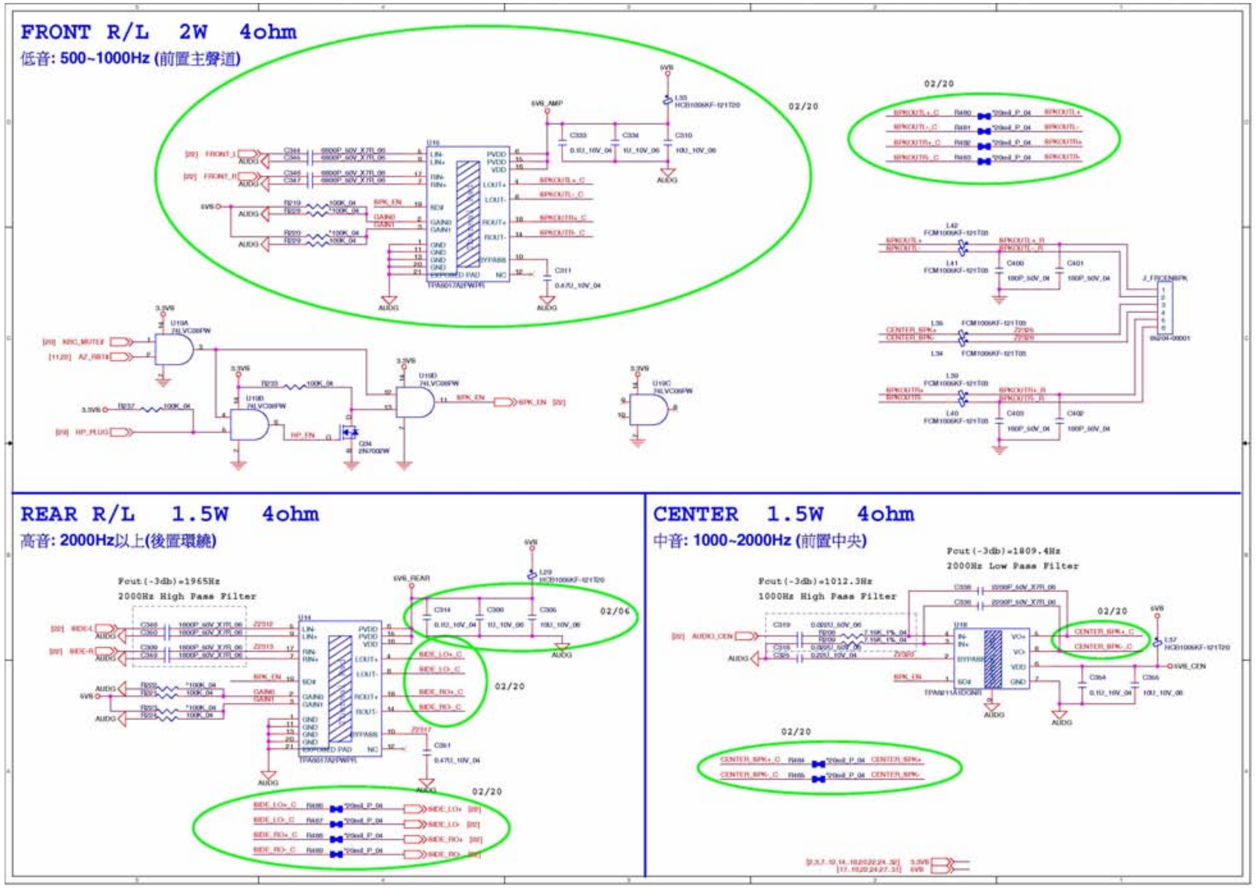
Codec, Subwoofer, DMIC



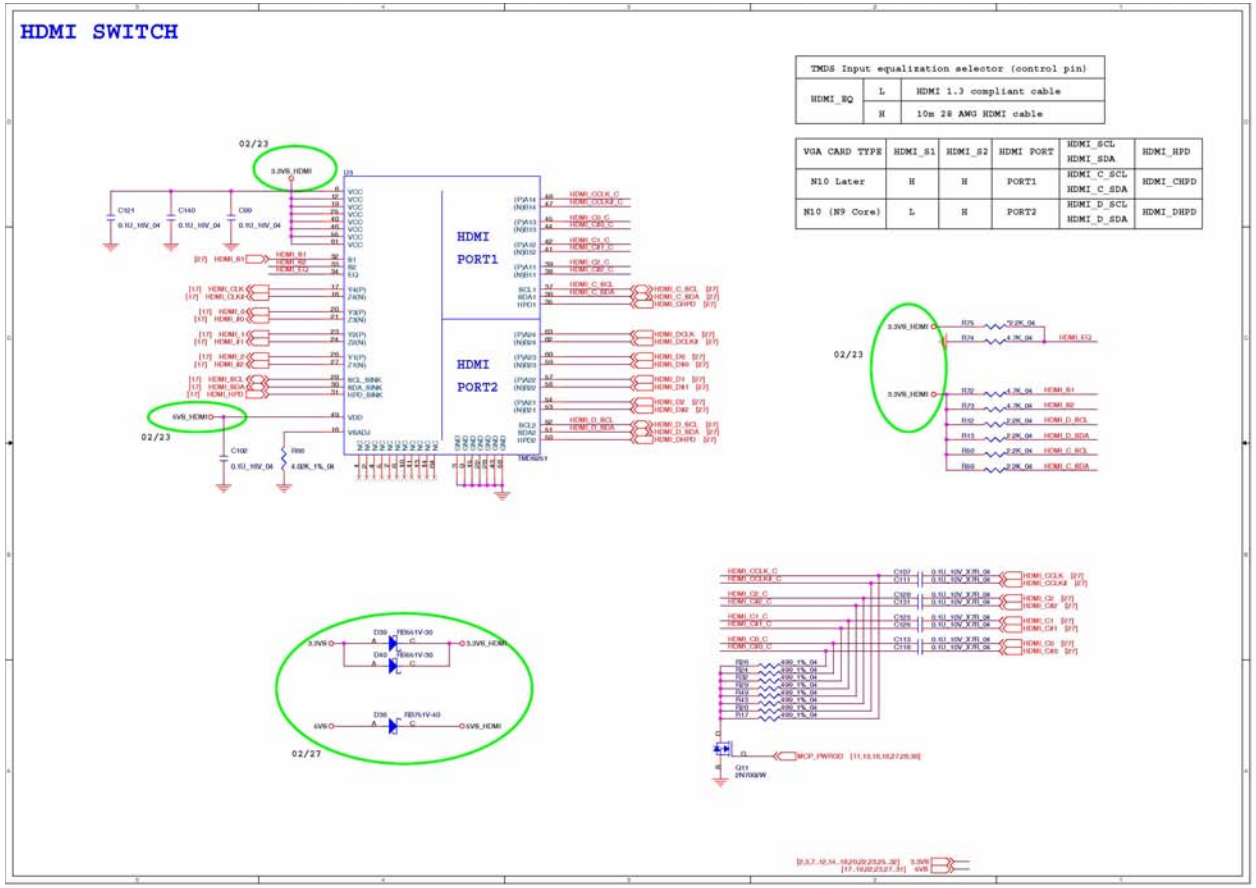
Sheet 22 of 53
Codec, Subwoofer, DMIC

Audio AMP

Sheet 23 of 53
Audio AMP



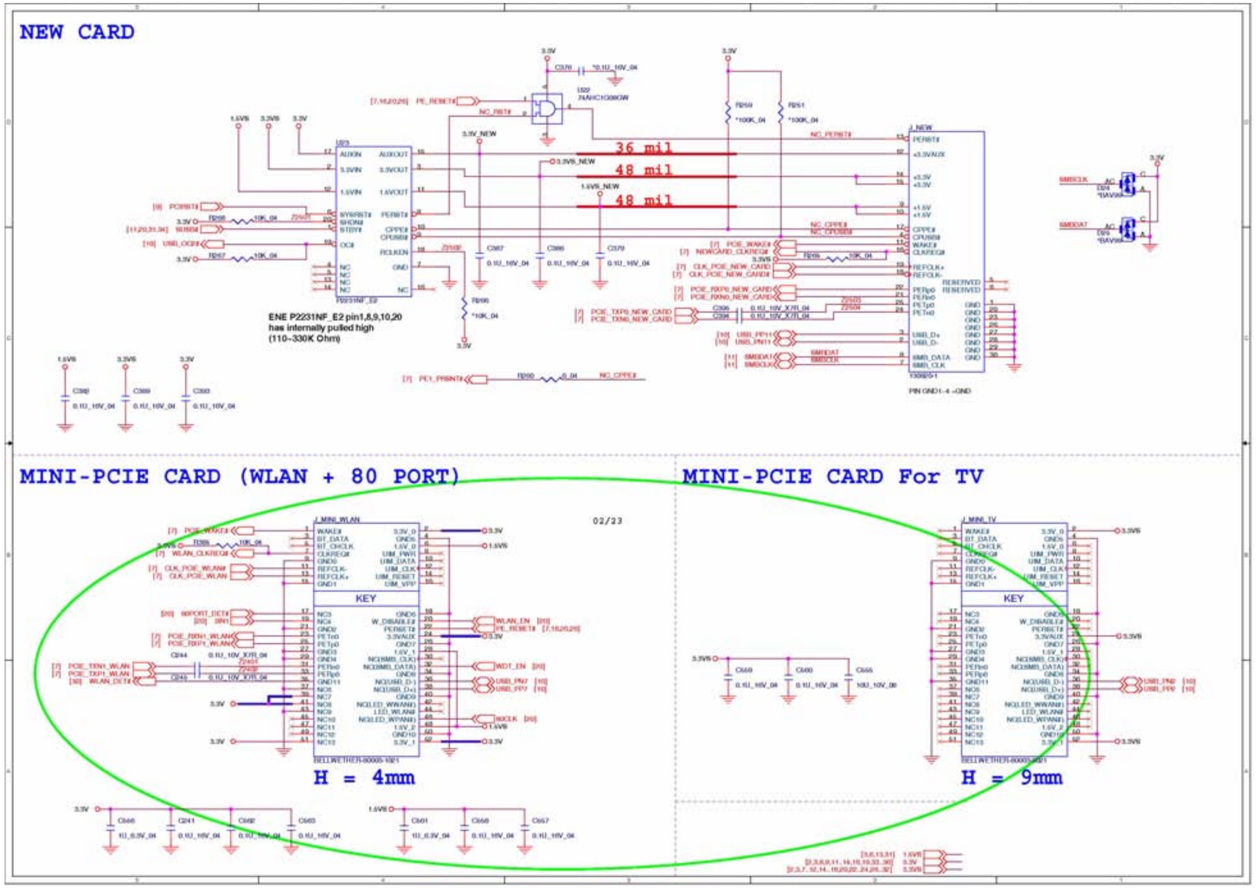
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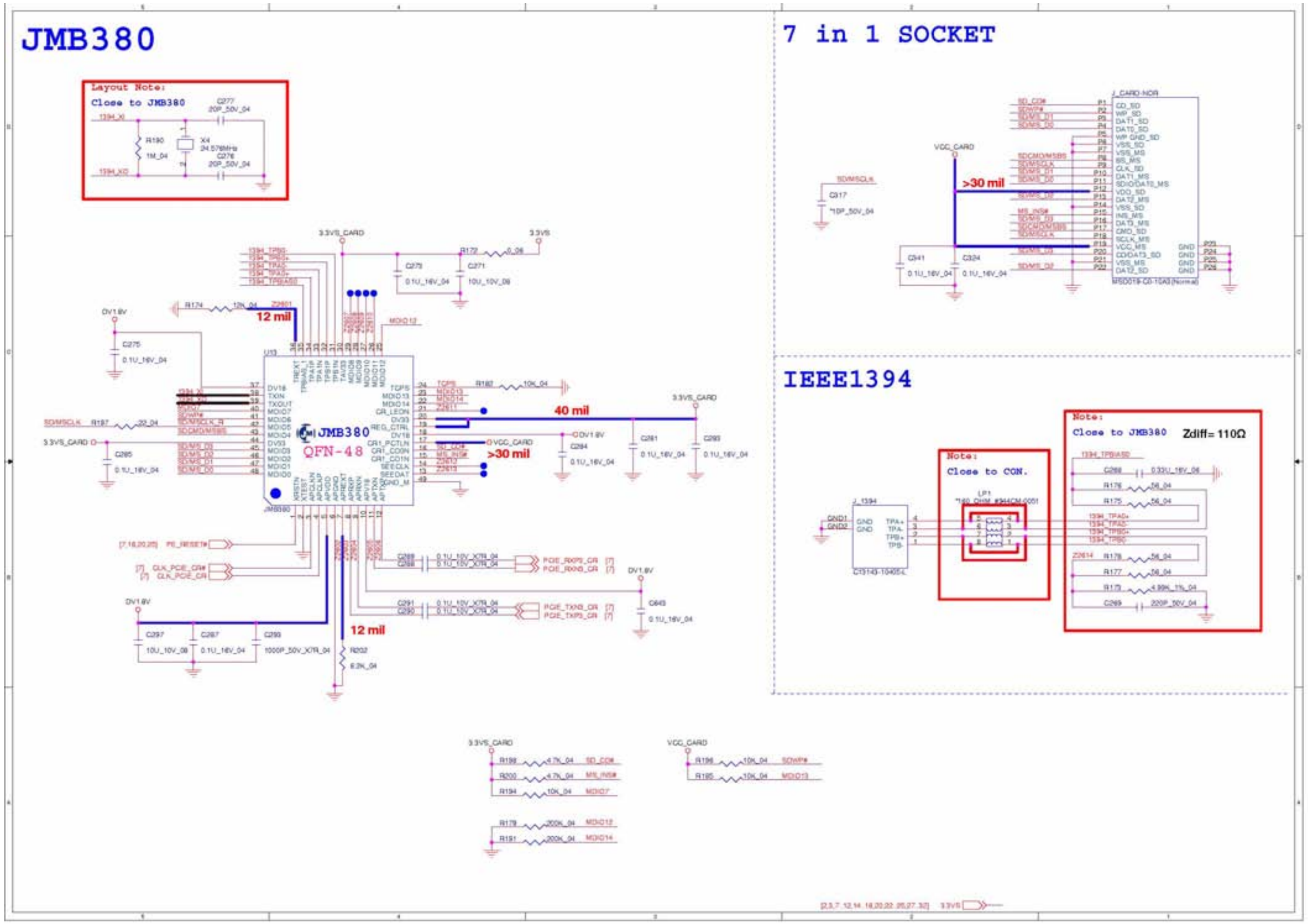
Sheet 24 of 53
HDMI Switch

New Card, Mini Card

Sheet 25 of 53
New Card, Mini Card



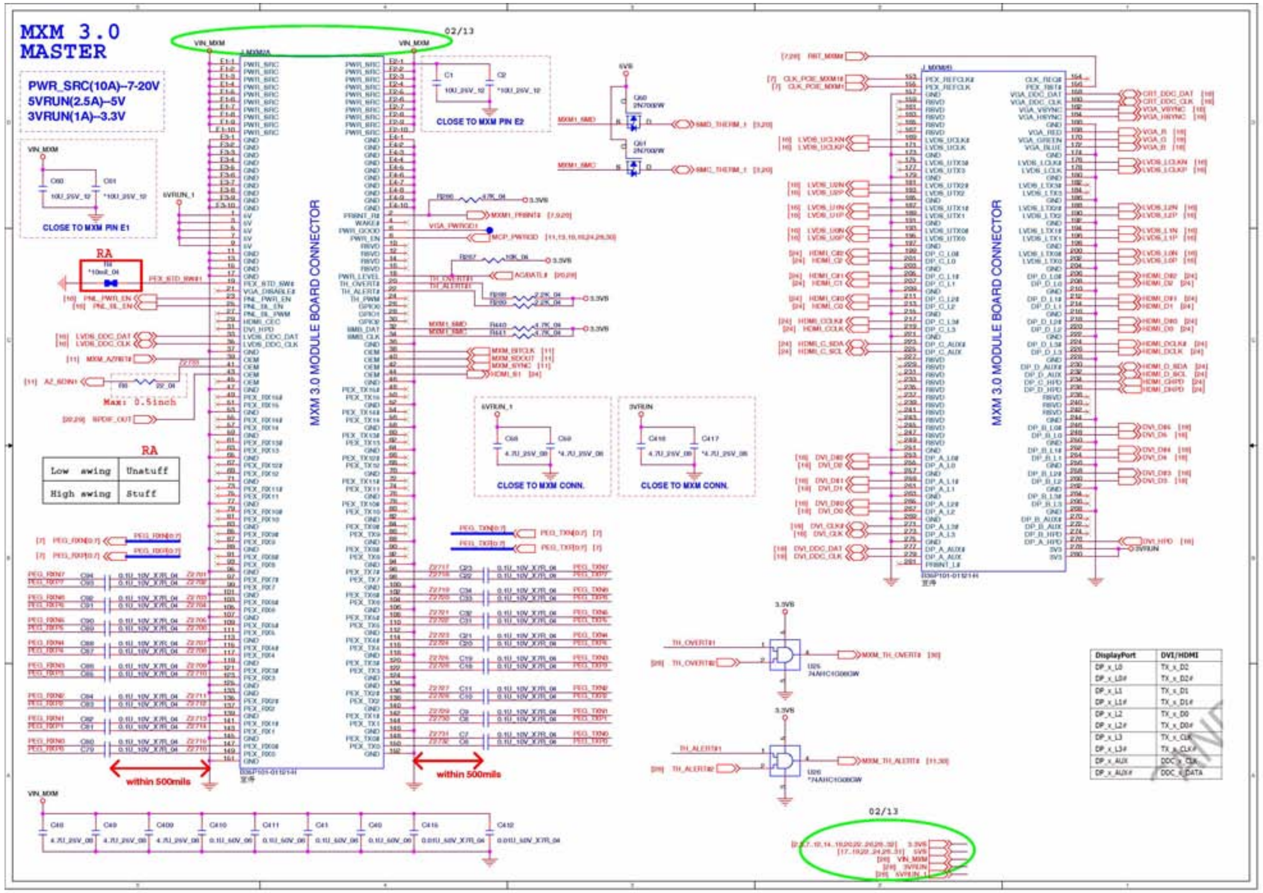
Card Reader, IEEE 1394



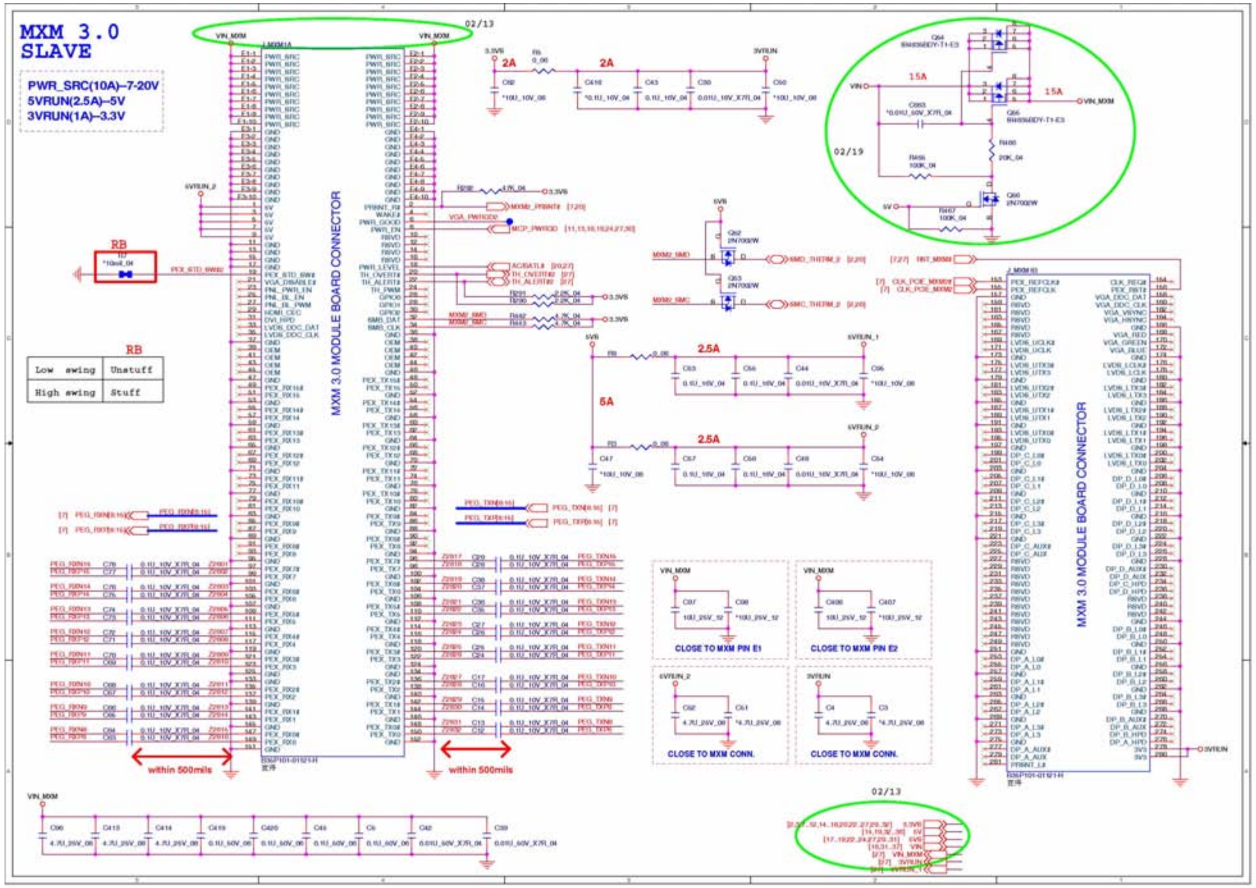
Sheet 26 of 53
Card Reader,
IEEE1394

MXM 3.0 Master

Sheet 27 of 53
MXM 3.0 Master



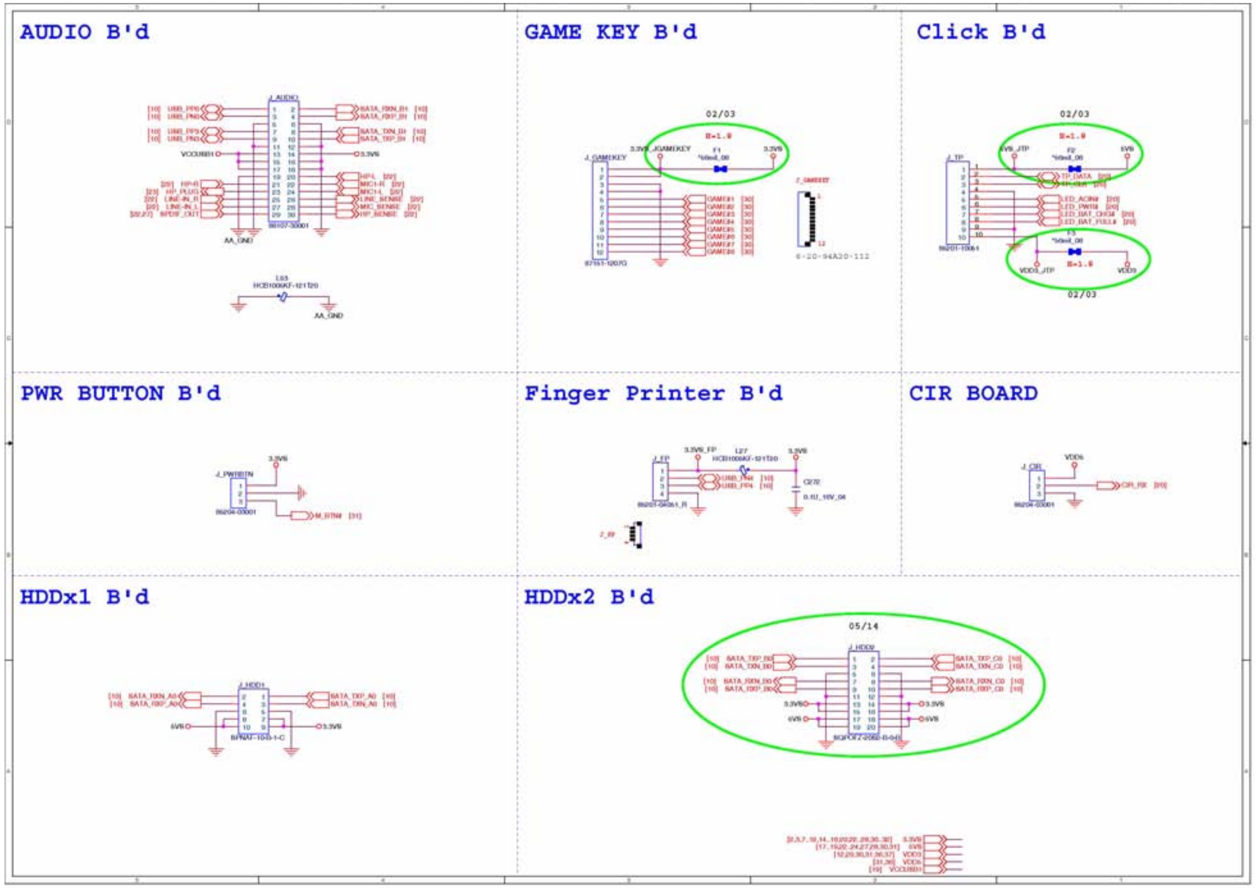
MXM 3.0 Slave



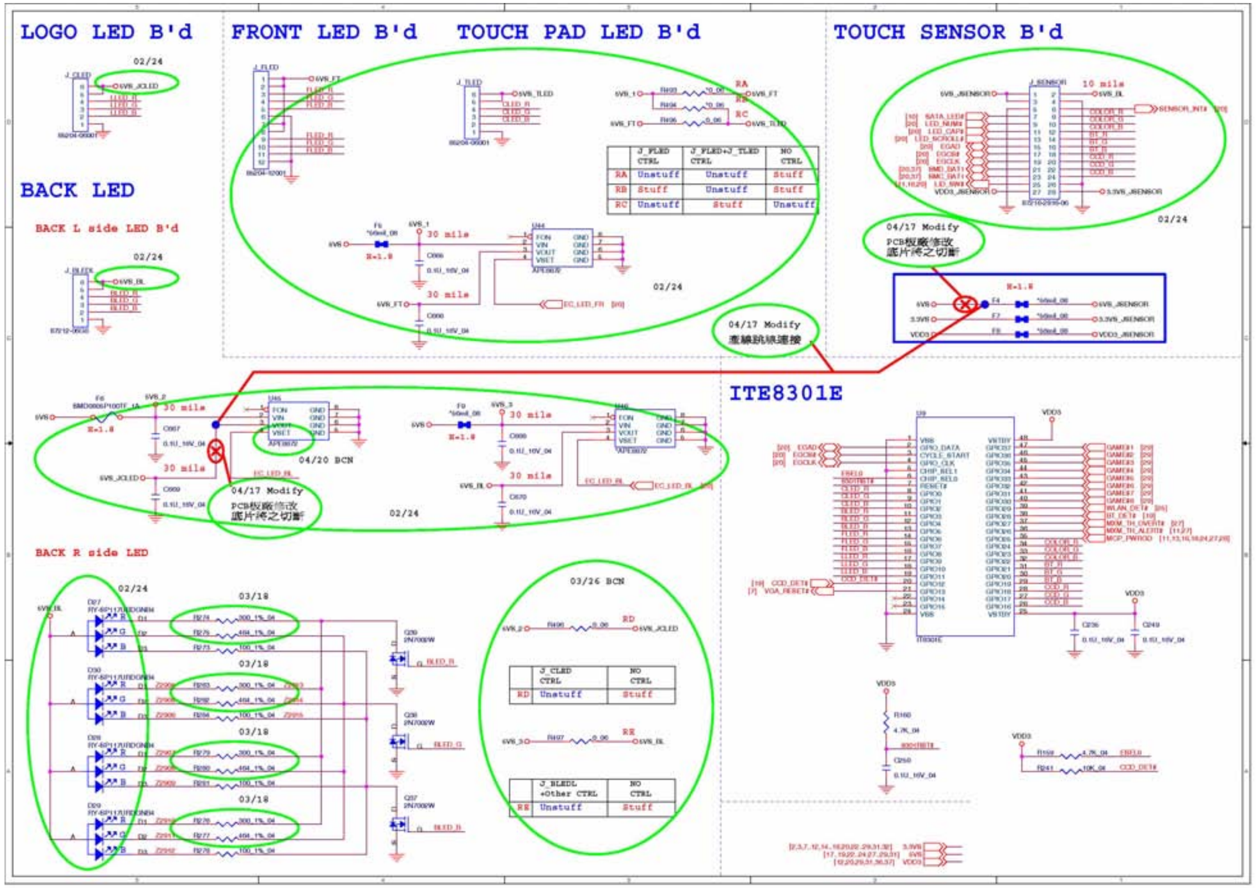
Sheet 28 of 53
MXM 3.0 Slave

MB to Small B’d Connector A

Sheet 29 of 53
MB to Small B‘d
Connector A



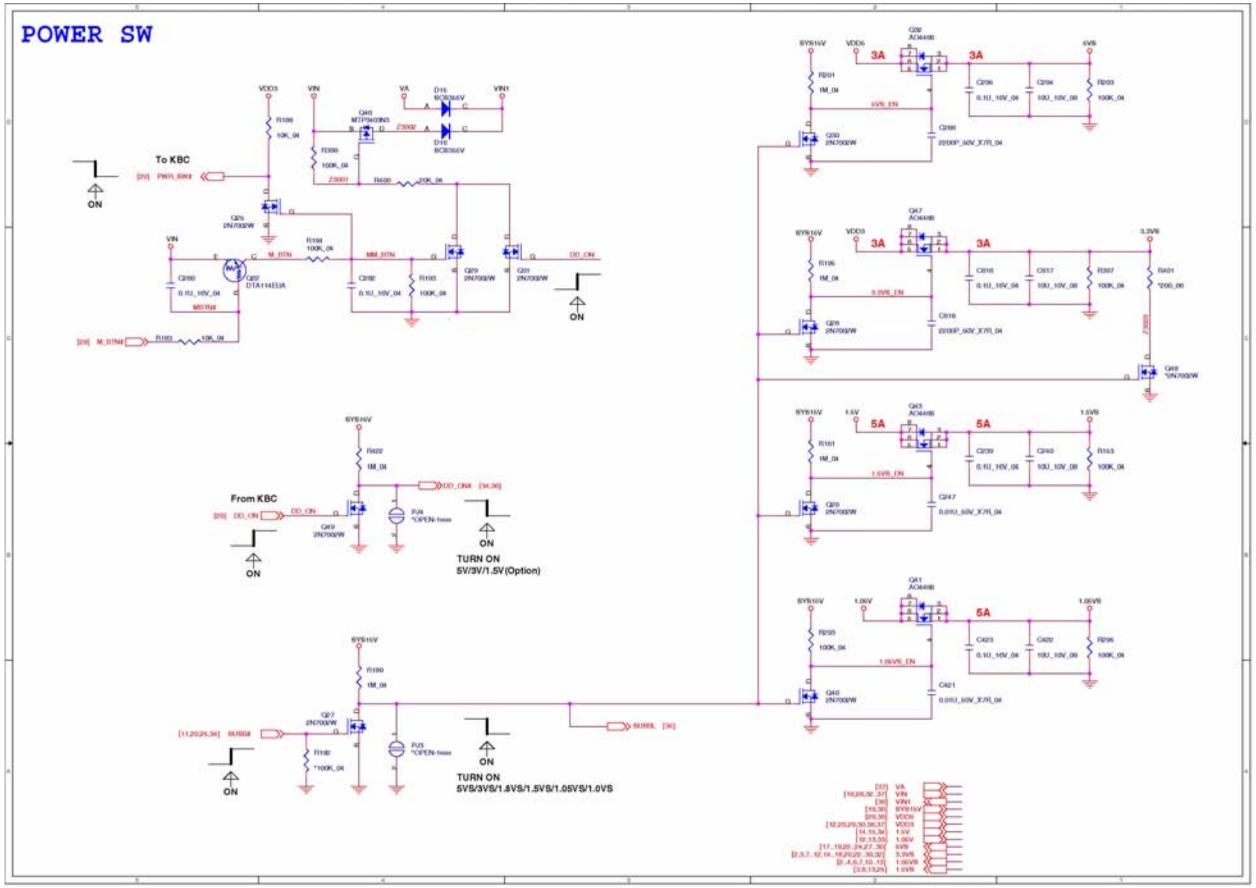
MB to Small B’d Connector B



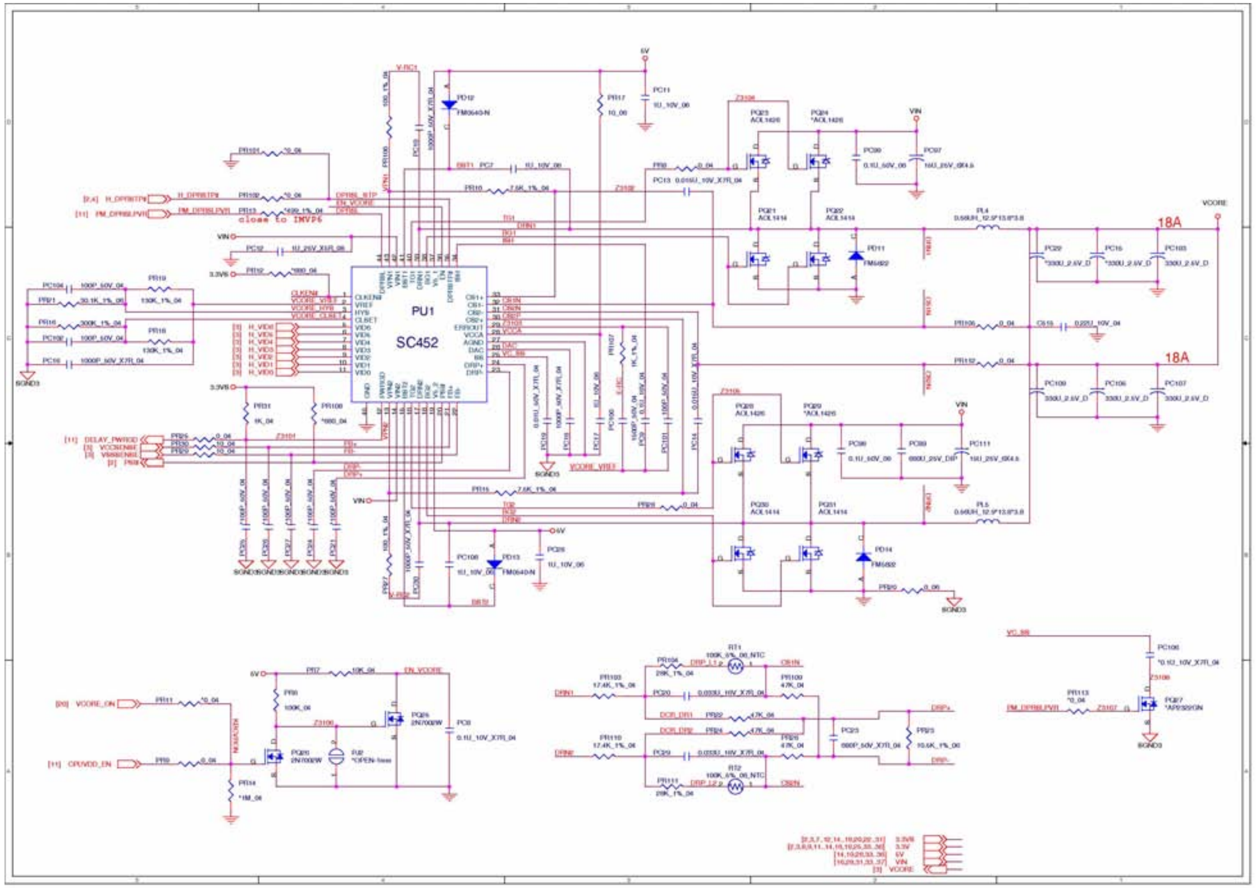
Sheet 30 of 53
MB to Small B‘d
Connector B

Power System

Sheet 31 of 53
Power System



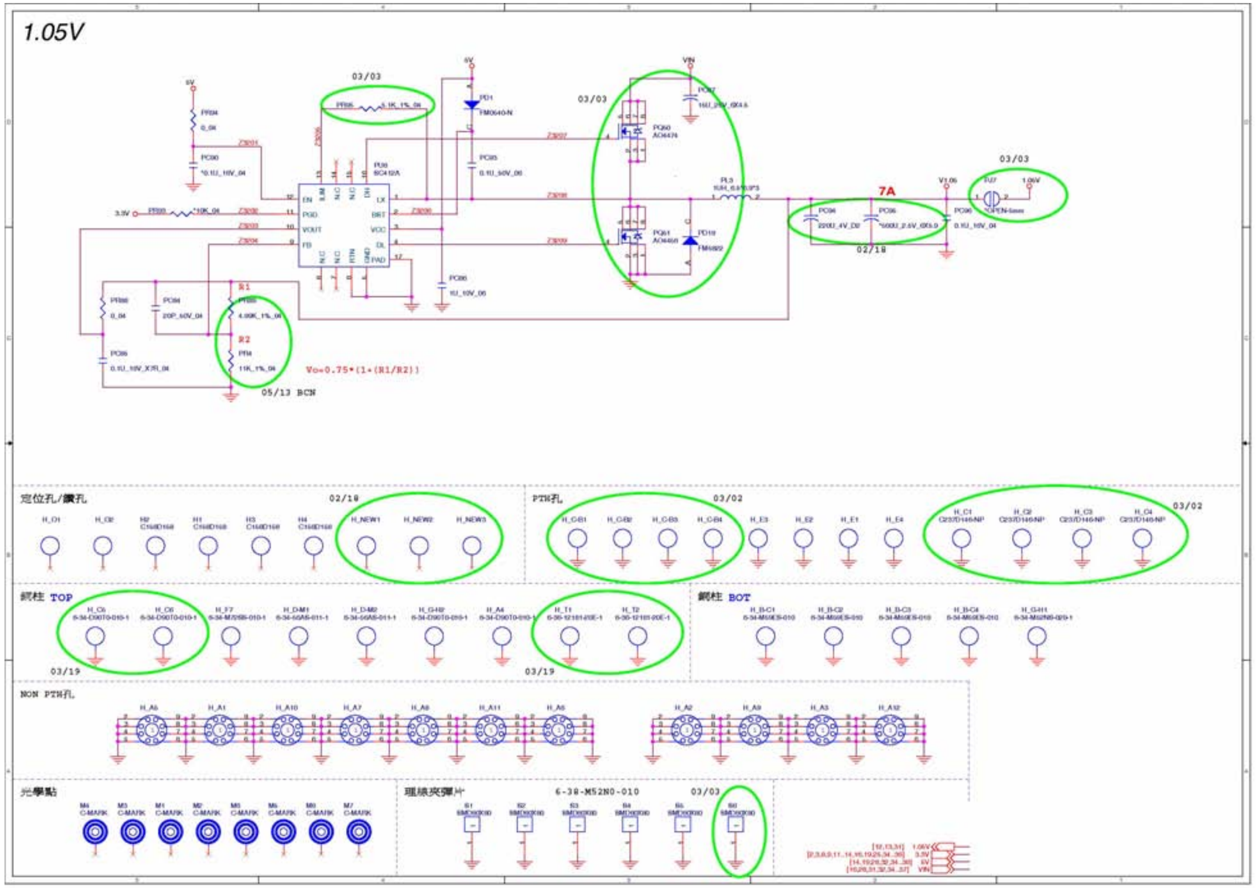
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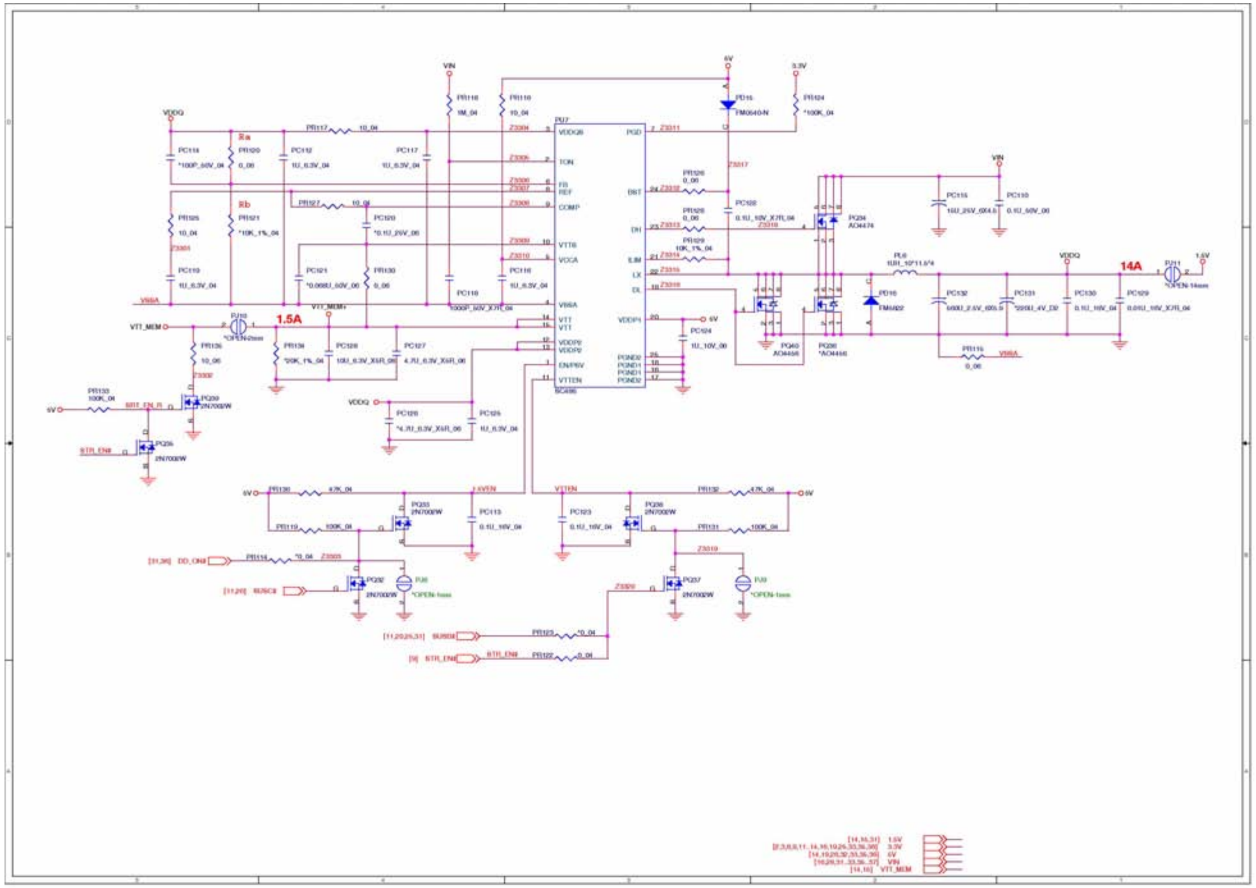
Sheet 32 of 53
Power VCore

PWR 1.05V, Screw Hole

Sheet 33 of 53
PWR 1.05V, Screw
Hole



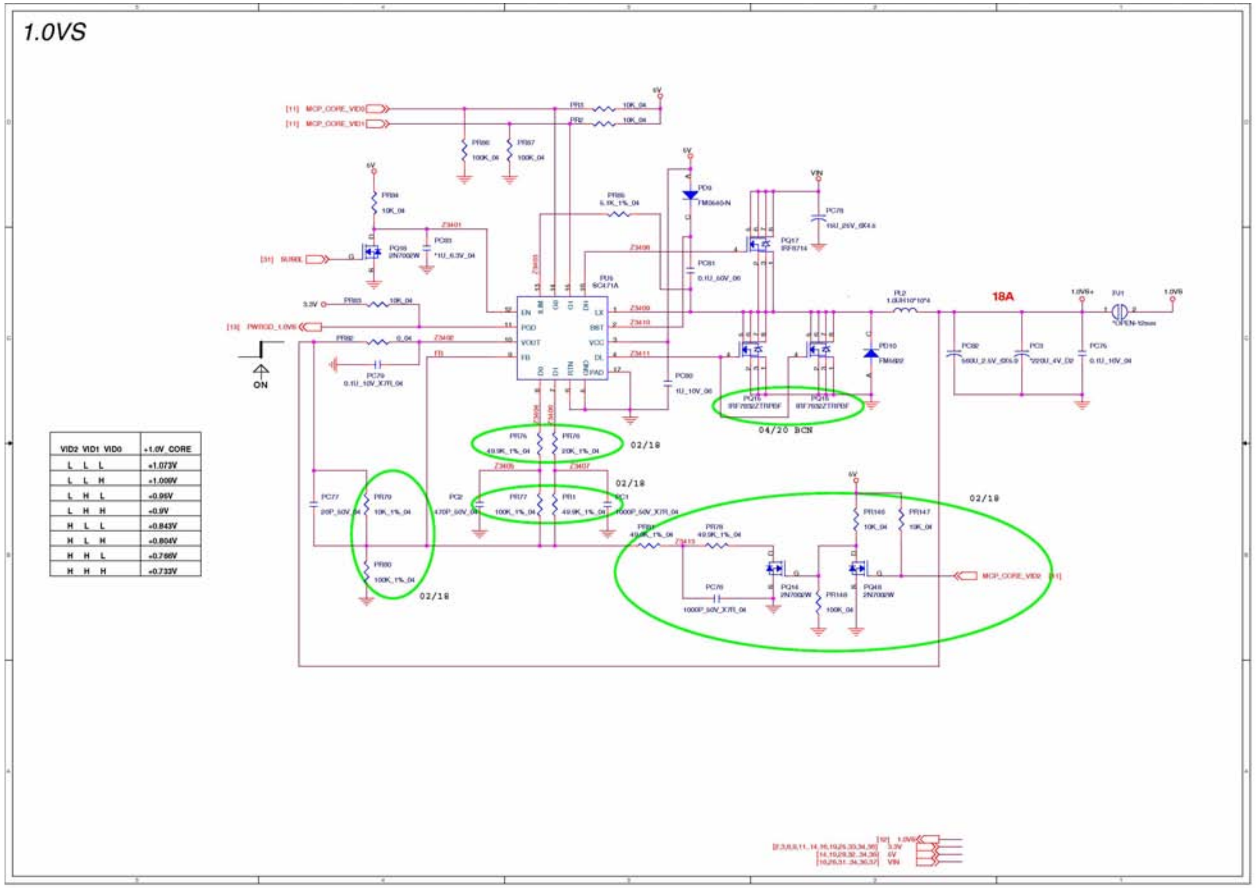
Power 1.5V/0.75V



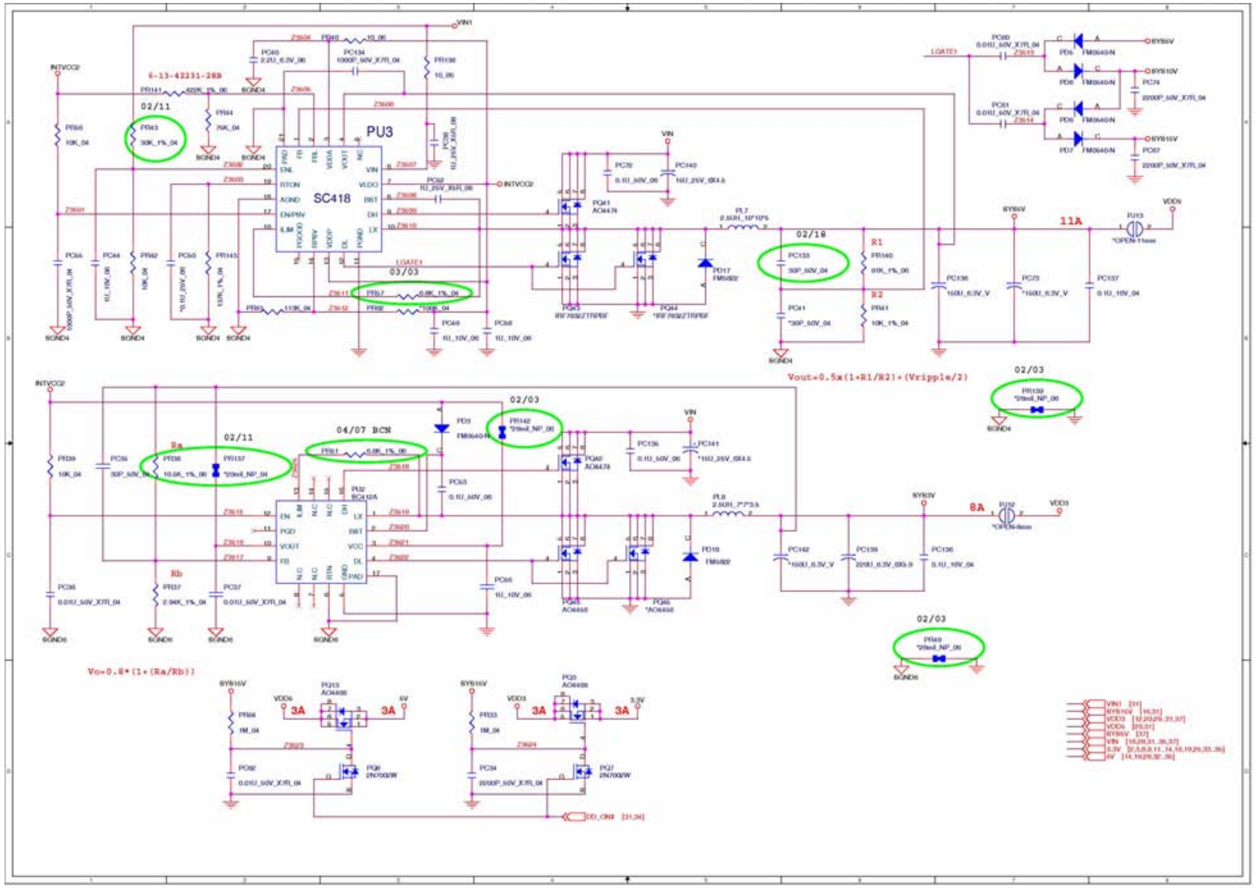
Sheet 34 of 53
Power 1.5V/0.75V

Power 1.0VS

Sheet 35 of 53
Power 1.0VS



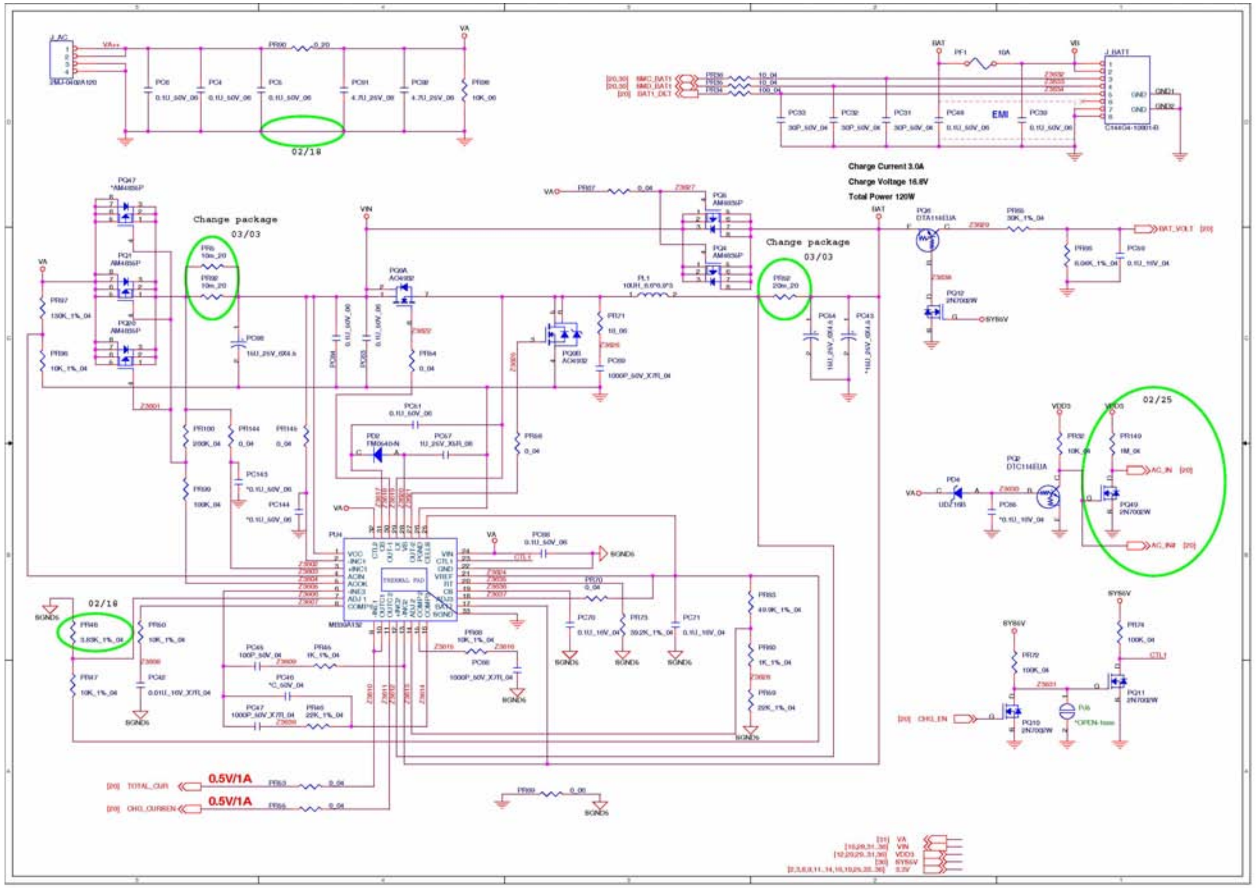
Power 3.3V/5V



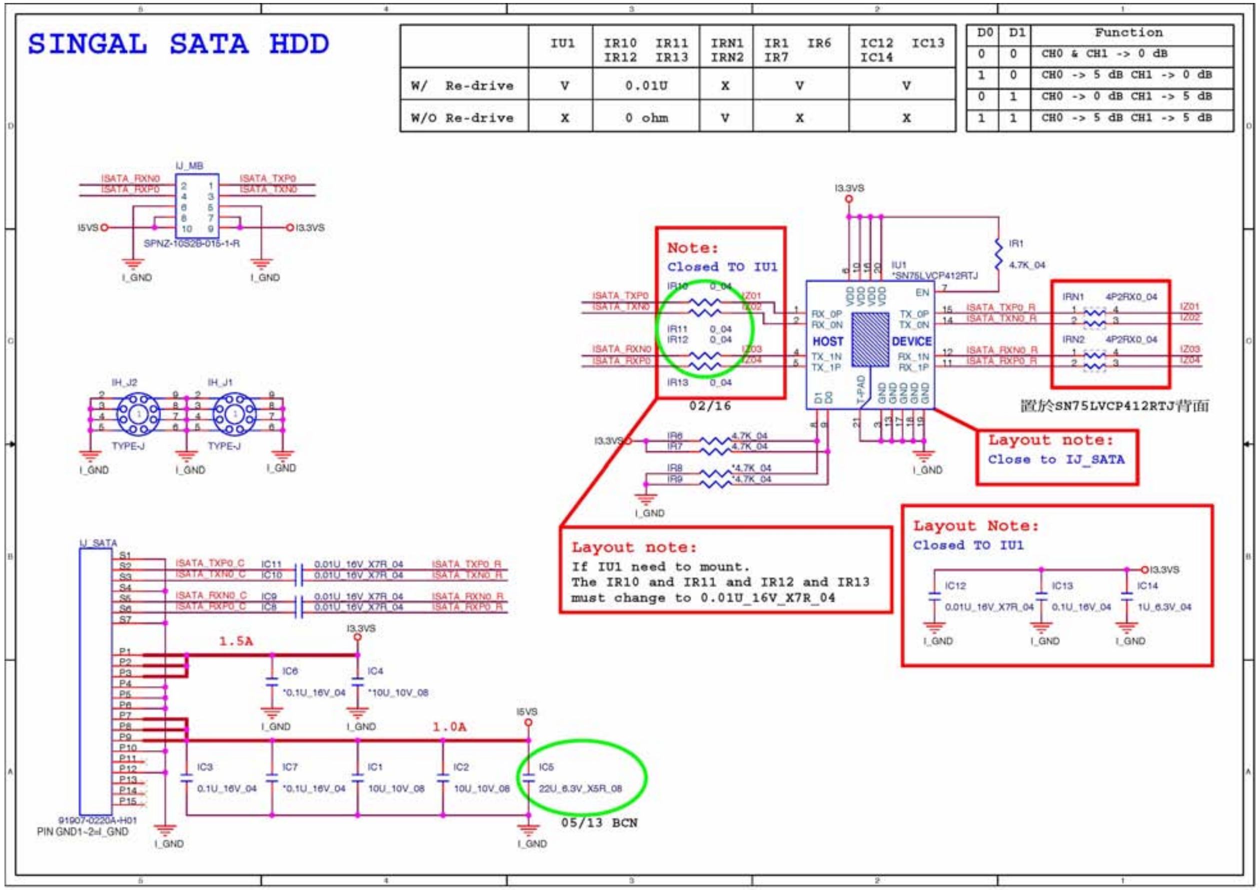
Sheet 36 of 53
Power 3.3V/5V

Power Charger, DC-In

Sheet 37 of 53
Power Charger,
DC-In



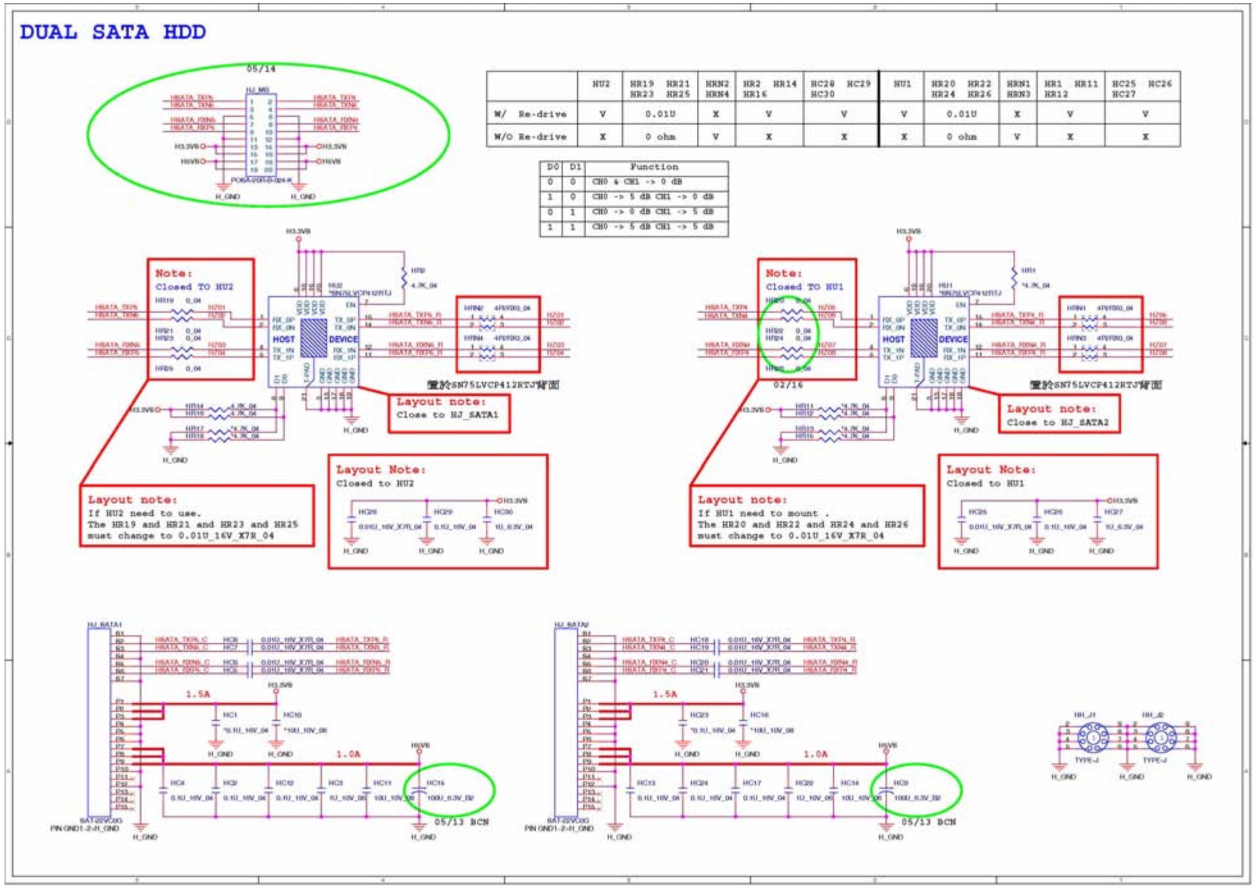
Single HDD Board



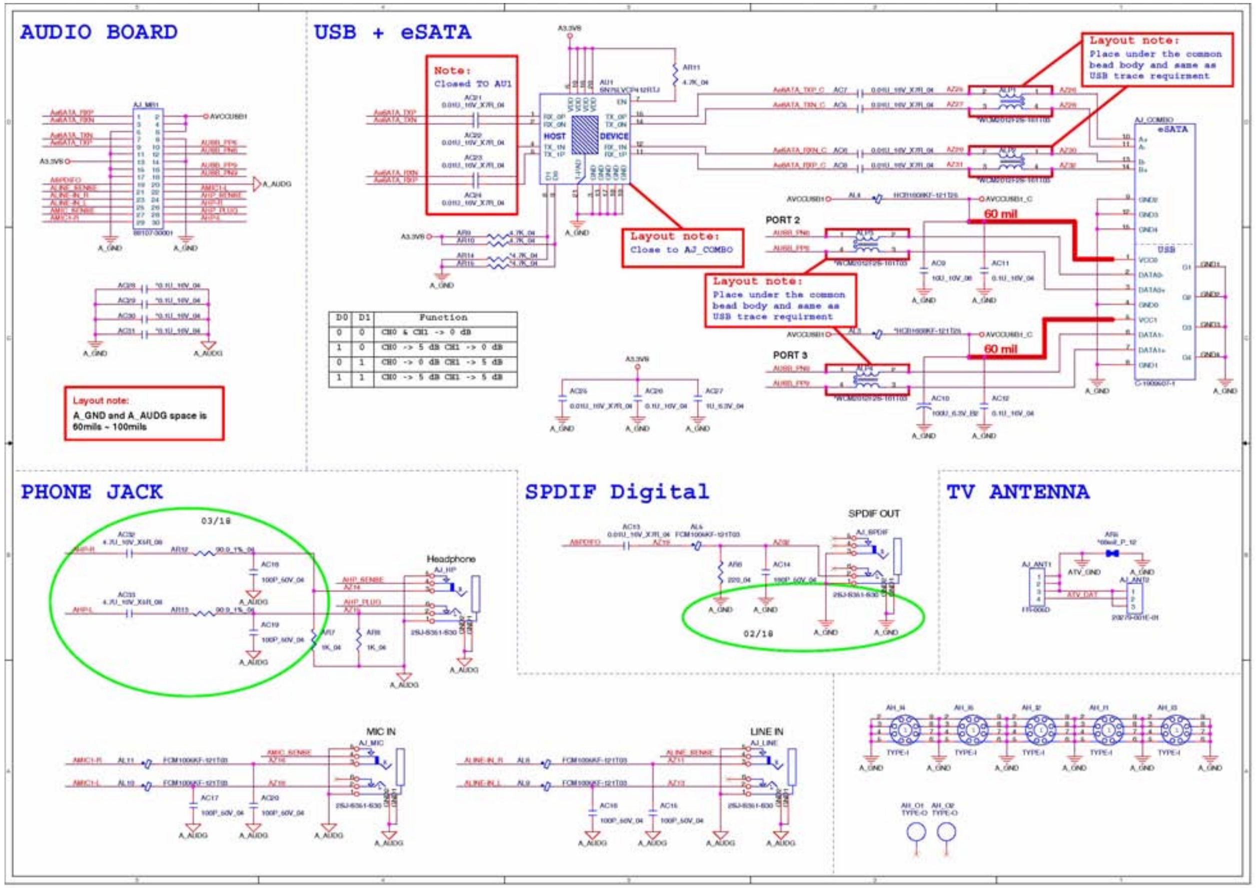
Sheet 38 of 53
Single HDD Board

Dual HDD Board

Sheet 39 of 53
Dual HDD Board



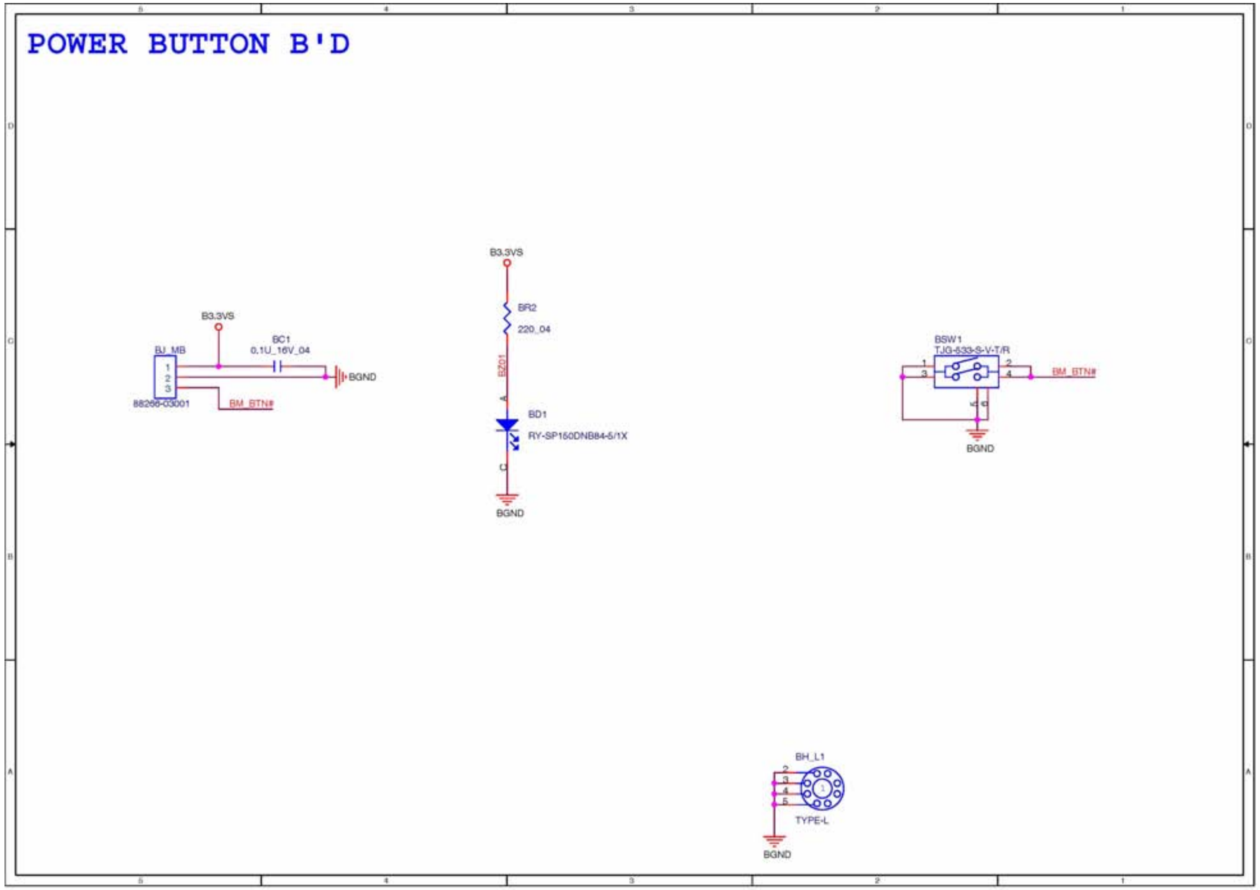
Audio Board



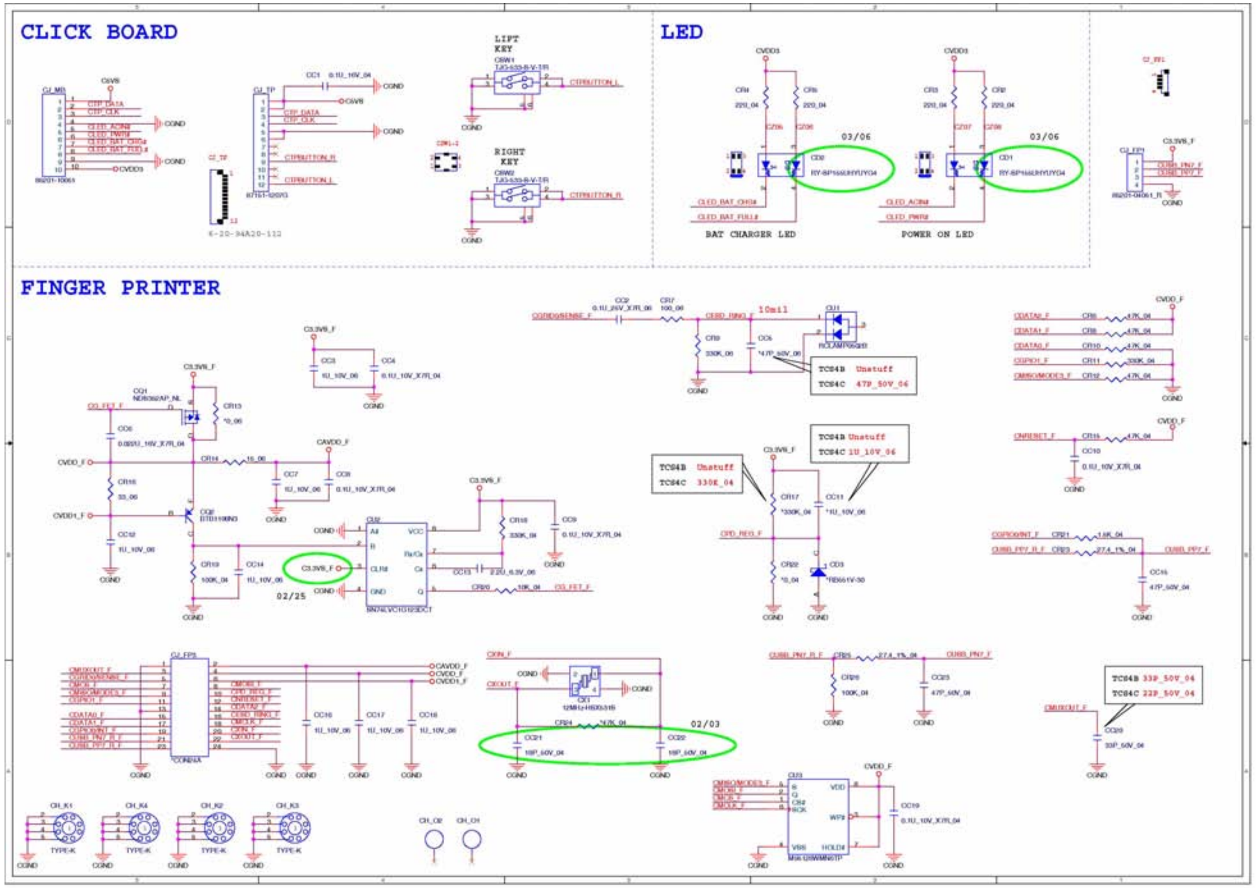
Sheet 40 of 53
Audio Board

Power Button Board

Sheet 41 of 53
Power Button
Board



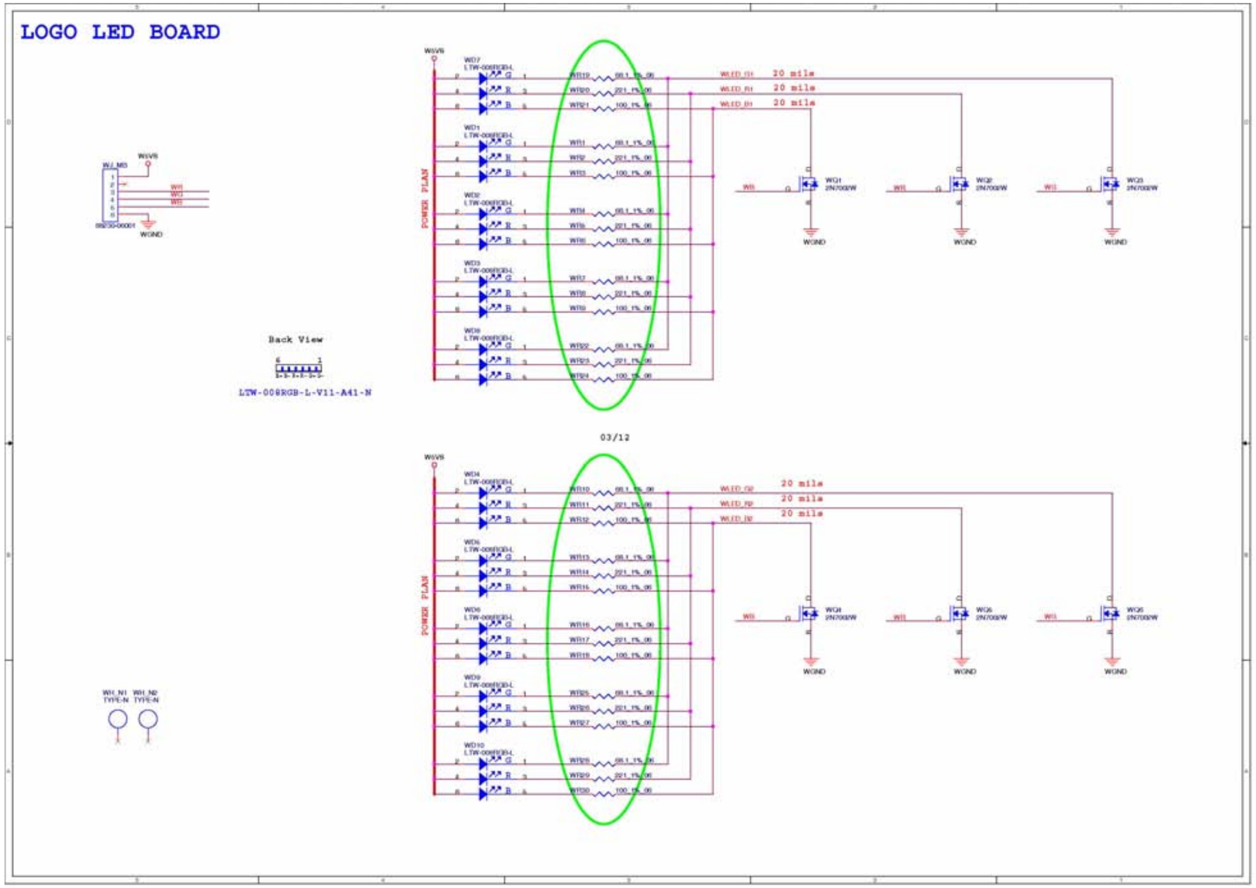
Click & FP Board



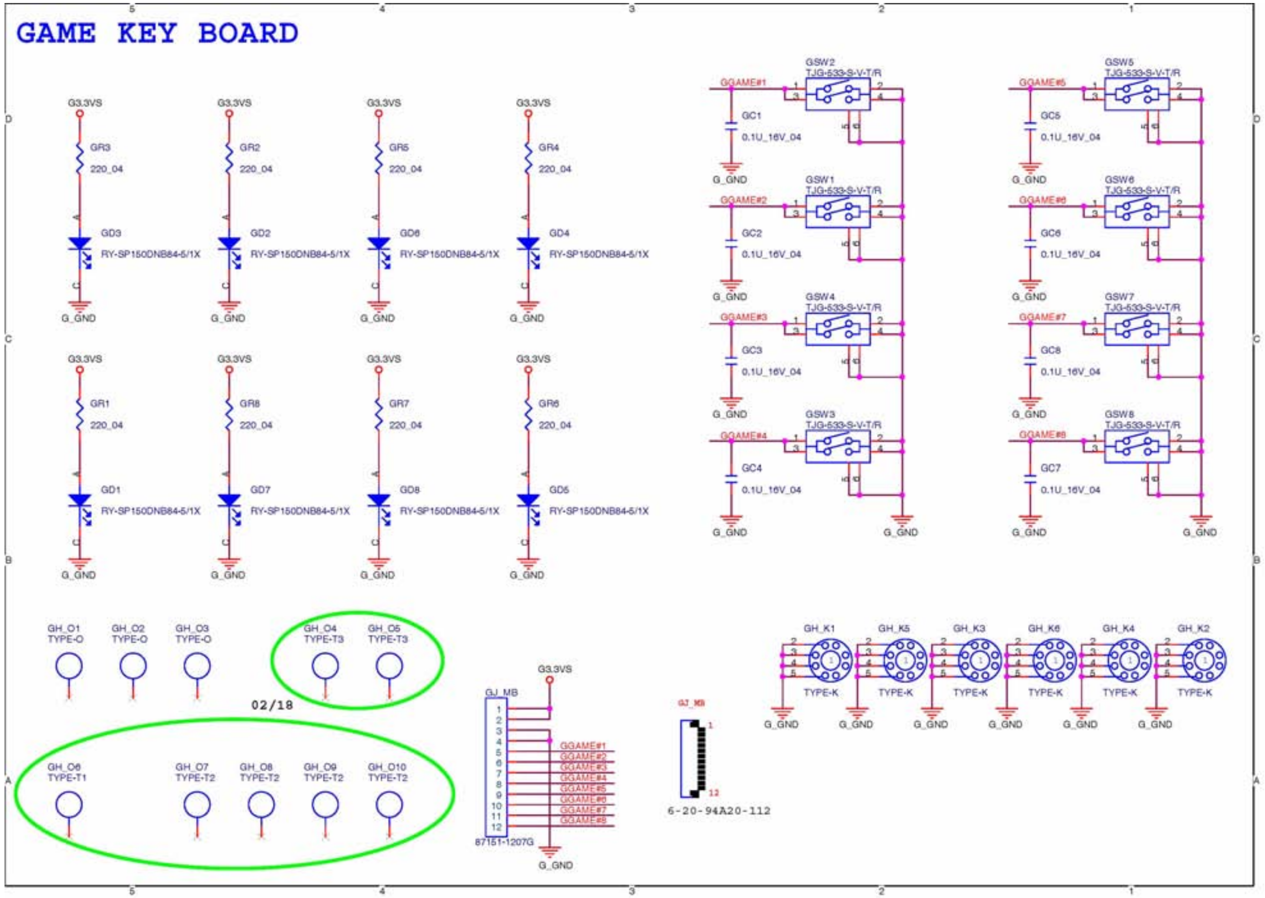
Sheet 42 of 53
Click & FP Board

Logo LED Board

Sheet 43 of 53
Logo LED Board



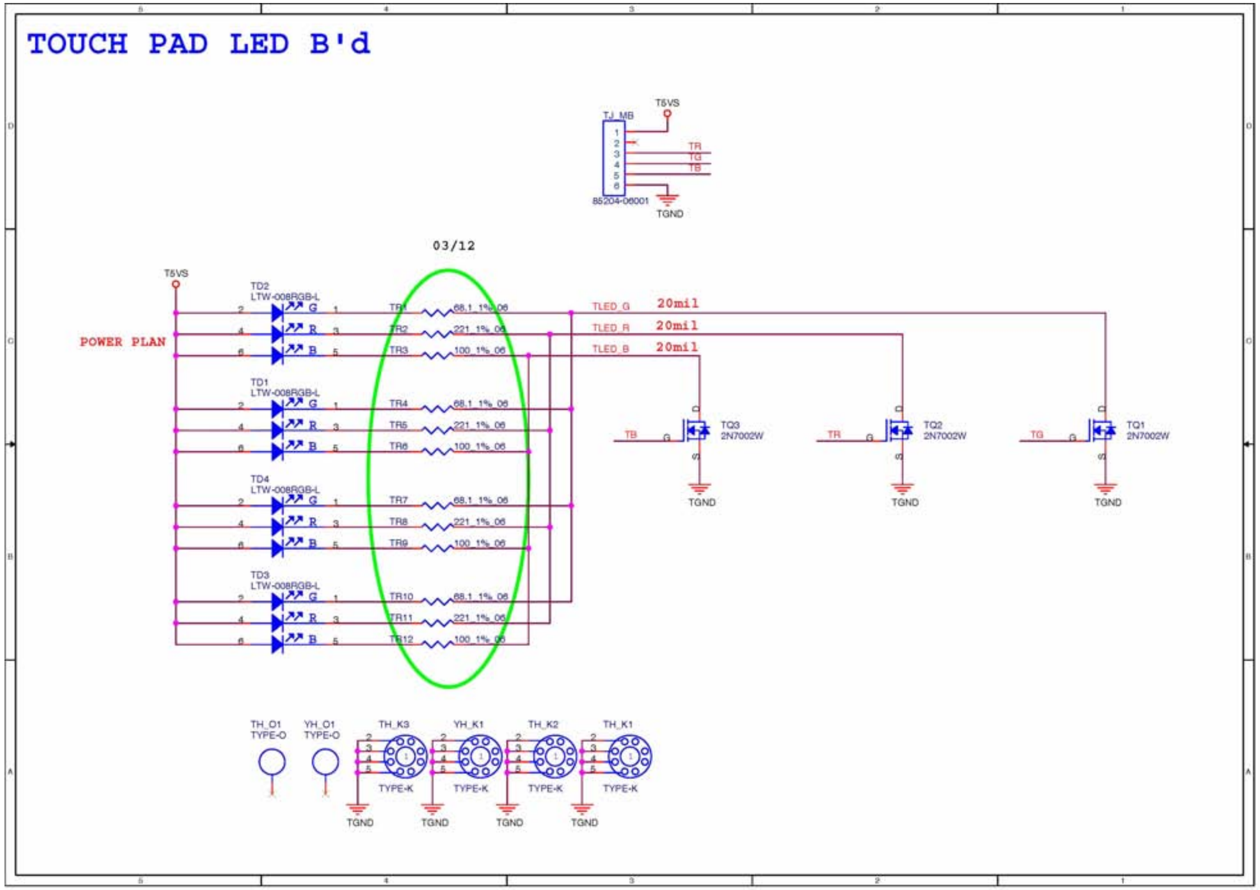
Game Key Board



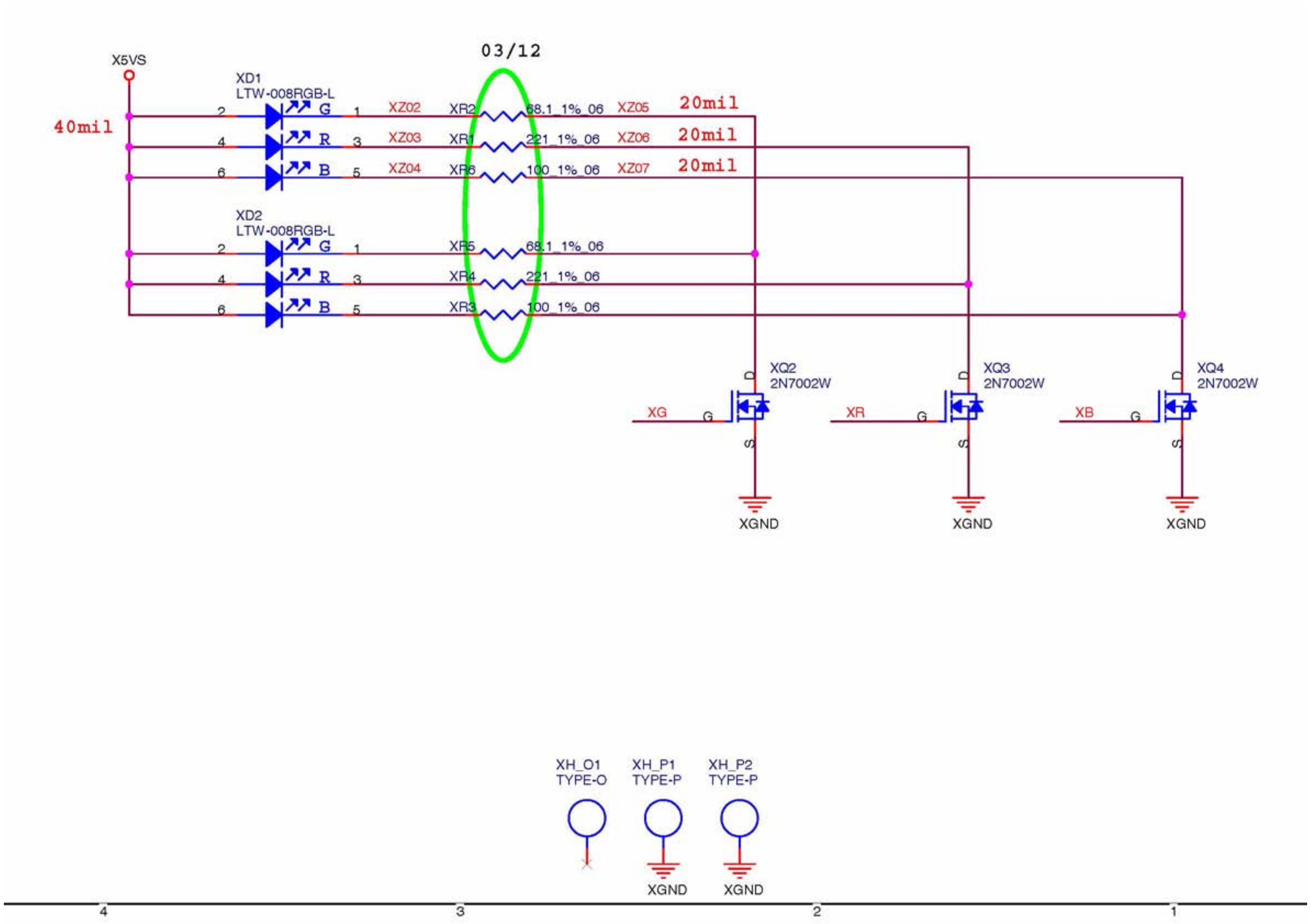
Sheet 44 of 53
Game Key Board

TouchPad LED Board

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TouchPad LED
Board



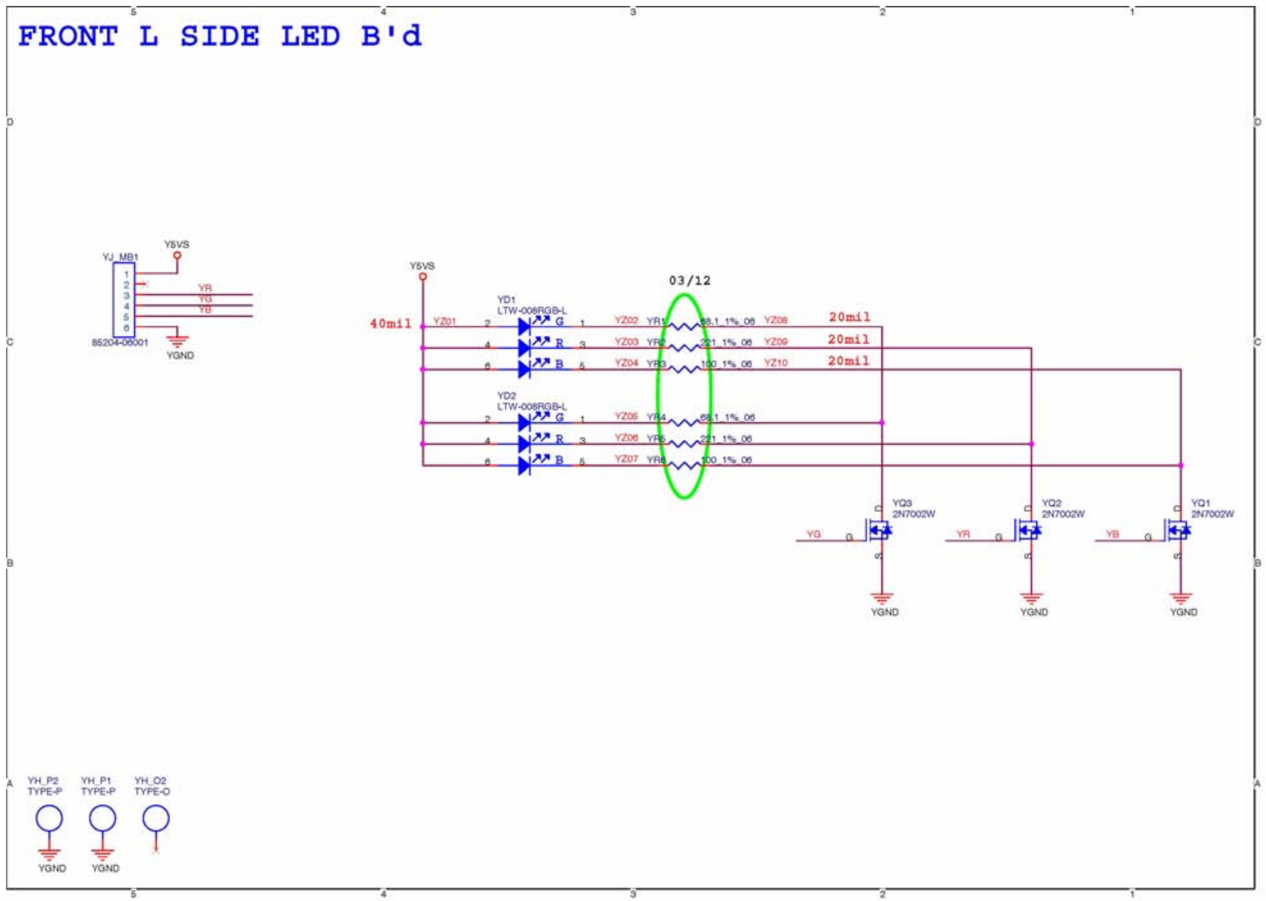
Front R Side LED Board



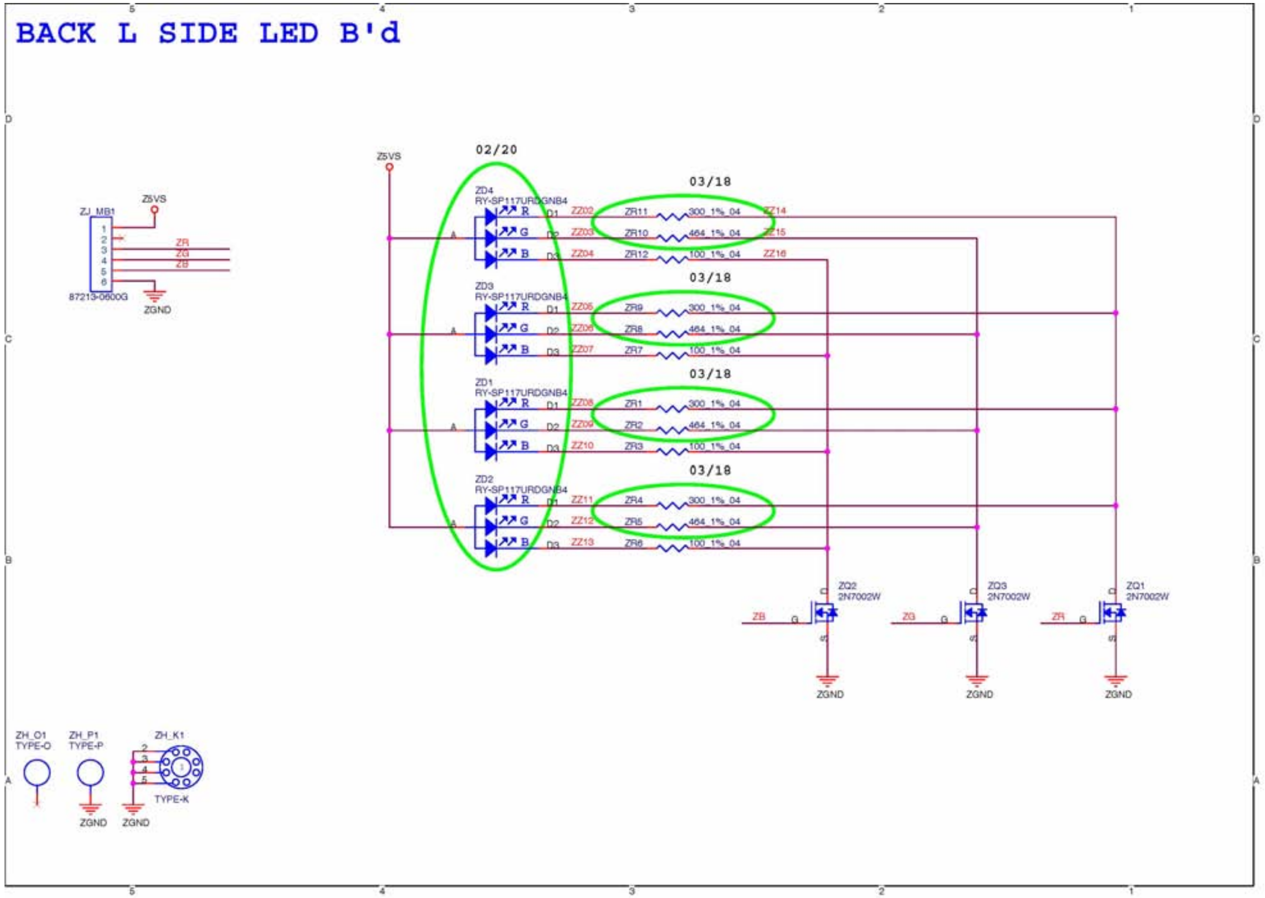
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Front R Side LED Board

Front L Side LED Board

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Front L Side LED
Board



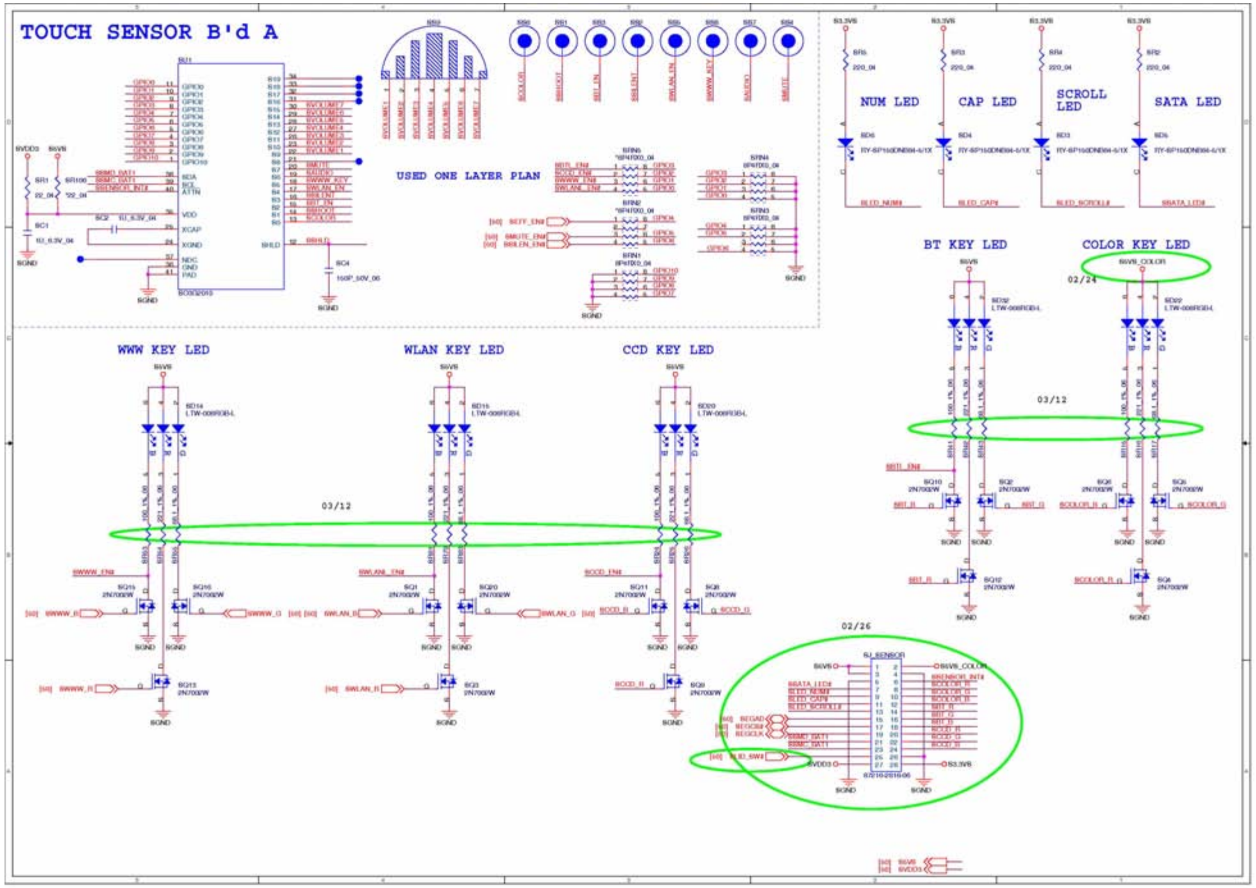
Back L Side LED Board



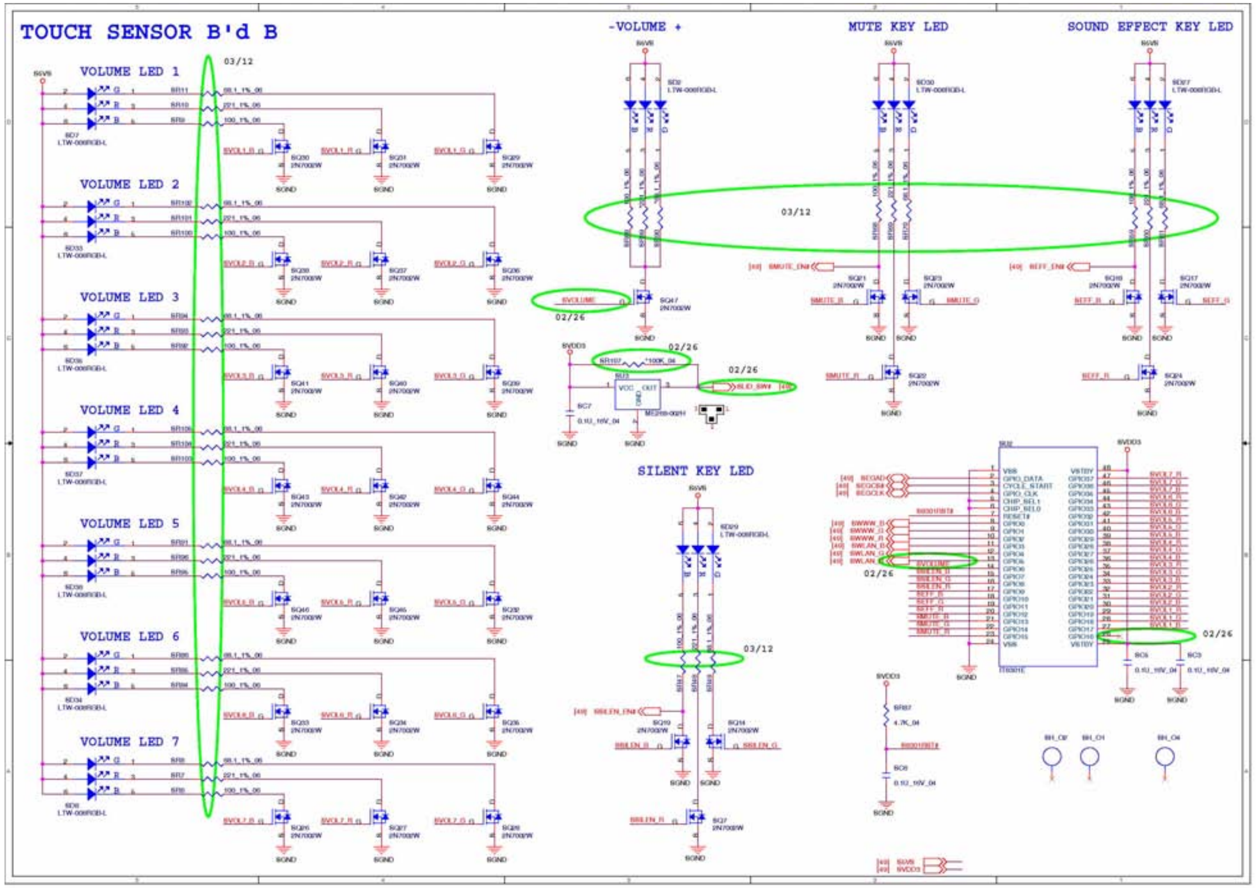
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Back L Side LED
Board

Touch Sensor Board A

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Touch Sensor
Board A



Touch Sensor Board B

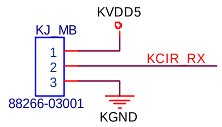


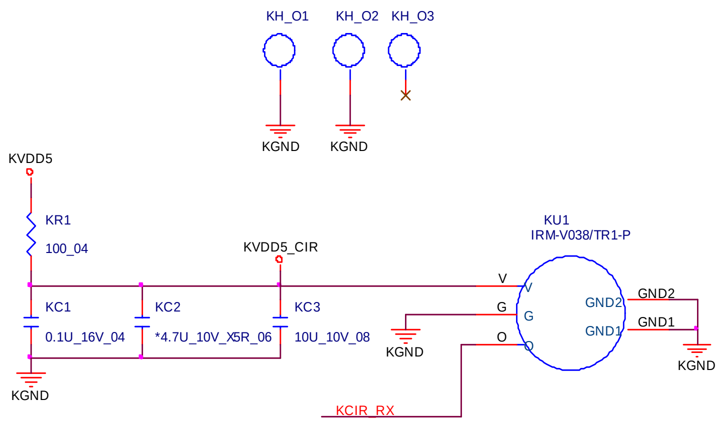
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Touch Sensor
Board B

CIR Board

CIR BOARD

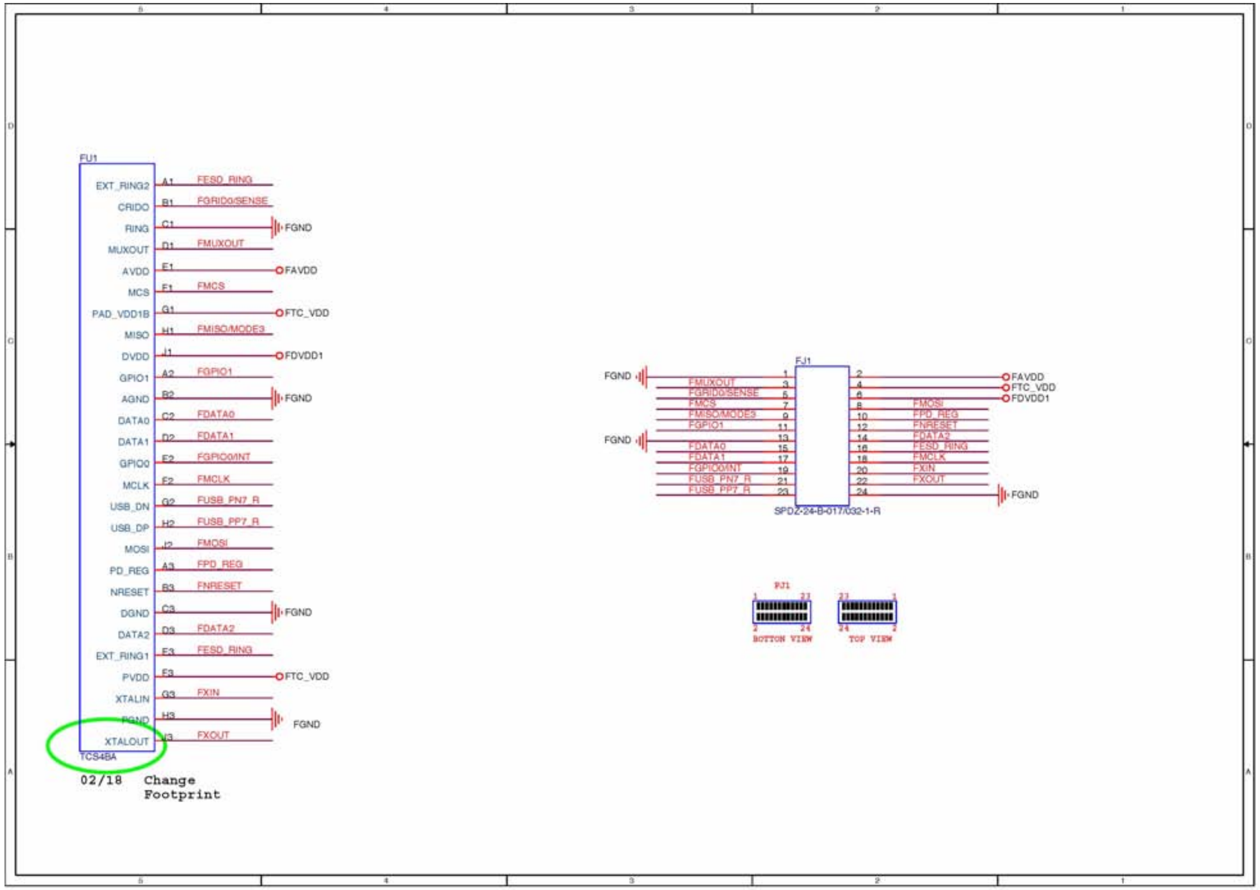
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CIR Board





B.Schematic Diagrams

Finger Board



Sheet 52 of 53
Finger Board

PWR on SEQ Diagram

Sheet 53 of 53
PWR on SEQ
Diagram

